INDUSTRIAL COMBINATION IN ENGLAND

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BY

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TO

PROFESSOR T. A. SMIDDY

PREFACE

This inquiry has been carried out in the hope that it may help towards providing a scientific work on industrial combination in England. The subject is of great importance, yet there has been no adequate survey of it for many years; none, indeed, since 1909, when Professor Hermann Levy, of Heidelberg University, dealt brilliantly with it in his *Monopoly and Competition*, a work largely based on material provided a few years earlier by Mr. Macrosty's instructive *Trust Movement in British Industry*. The "movement," then in its infancy, has since developed rapidly, and is now no mere tendency but an established feature of English industrial organization. It is strange that this situation should be viewed so apathetically by a community which twenty years since was roused to fury against a projected soap trust. Perhaps this indifference springs partly from lack of knowledge, and partly from a still deeply cherished faith in the invincibility of competition. It is true, indeed, that in several industries there still is active if not excessive rivalry; but that circumstance, arising largely, as it does, from the post-war dislocation of trade, should not be allowed to obscure the fact that in others there is little of it.

It is the purpose of this treatise to show how far competition has been suppressed; to examine the structure, achievements, and price policy of the various groups; and, finally, to consider tentatively the advisability of imposing some form of Government supervision, such as has recently been introduced in the food trades.

Special attention has been paid to the question of profits in dealing with the individual combines. The net earnings are in all cases considered not by themselves or merely in relation to ordinary capital, which would be fallacious, but are instead expressed as percentages of the resources employed (i.e. the total assets less liabilities; or, in other

words, the share and debenture capital, reserves, and profit balances). The defect is realized that the published accounts, though certified, may not indicate the full extent of the profits, since it is a common practice to make secret reserves and to take credit for only a part of the divisible earnings of subsidiary companies (investments in which often form the bulk of the assets). This defect is, however, partly neutralized by the fact that if secret reserves are accumulated, the resources employed, of which the profits are expressed as percentages, are proportionately understated. Of course, the net assets, even where no secret reserves exist, may not always afford a true basis for comparison, since cognizance has to be taken not only of the terms of the original purchase price, but of subsequent changes in the general price level. This latter factor disturbs both the trend of profits and the value of the assets, and must always be taken into account in comparing pre-war and post-war results. Bearing this in mind, the figures given in the text may be considered to afford a fairly reliable guide. It will, of course, be observed that figures for the war period (1914–1918) are not included, as they would be of little value.

The broad conclusion is reached that, while a large section of English industry has come under the influence of trusts, there is as yet little ground for alarm, having regard to the moderate price policy which most of the groups appear to pursue. It may, however, be ultimately desirable that the natural restrictions on their power should be fortified by some mild form of Government supervision.

The opportunity is here taken to acknowledge the assistance obtained by access to the company files of the *Statist*, as well as to the series of articles published on the subject by that journal a few years ago.

Acknowledgments are also due for the helpful material provided in Dr. Levy's *Monopoly and Competition*; Mr. Macrosty's *Trust Movement*; and Professor Jones's *Trust Problem in the United States*, the latter work being found

particularly useful in examining the question of the efficiency of the trust form of organization.

Mention should be made, too, of the information obtained from the numerous reports published during the post-war period by the now defunct Standing Committee on Trusts.

In conclusion the writer would wish to record his special gratitude to Mr. John Kissane, who revised the manuscript of this book and made many valuable suggestions.

P. F.

LONDON,
December, 1926.

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CHAPTER I

INTRODUCTION

"*We are satisfied that trade associations and combines are rapidly increasing in this country, and may within no distant period exercise a paramount control over all important branches of British trade.*"[1] This finding of a committee appointed in 1918 to inquire into the existence of trusts in England has served to direct attention to a development of far-reaching importance in English industrial organization. Not many years ago it was the custom to regard the "trust movement" as purely alien; England, as the stronghold of free trade and of economic individualism, was, in fact, considered to be permanently safeguarded against those monopolist tendencies which were so marked a feature of foreign industries. The tariff, it was argued, could be the only possible "mother of trusts" in a country in which the monopolization of essential supplies of raw material was quite impracticable. But it was forgotten, first, that there were many purely national industries in which natural conditions gave far greater protection than a tariff could ever confer; secondly, that there were other industries in which the mere possibility of levering up internal prices to the external level offered a strong attraction to combination; and, thirdly, that, irrespective of foreign competition, the general tendency for productive capacity to overtake and exceed demand was bound to culminate in widespread resort to association or amalgamation. This pressure of circumstance was all the greater because of

[1] Report of Committee on Trusts, 1919.

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the growth of the "normal" size of the economically profitable industrial unit, which tendency, moreover, made automatically for a steady reduction in the number of enterprises relatively to the total output and thereby facilitated agreement between the surviving producers.

The progress of simple amalgamation is an important movement in itself, but it is not proposed here to outline it in detail except in those industries in which it has reached an advanced, if not actually threatening, stage. It has, up to a certain degree, derived its impulse largely from the desire for increased efficiency. So it has been in banking and railway transport, where a few gigantic combines have replaced the hundreds of individual firms that once existed. The degree of concentration is almost equally marked in oil distribution, meat importing, yeast, and artificial silk production; but in these cases it has been brought about not so much by amalgamation, as by a gradual process of internal development on the part of the few original firms. In the heavy branches of the iron and steel industry, also, this process of natural growth has contributed to the rise of mammoth undertakings; but amalgamation has, on the whole, played a more important part and has embraced the acquisition not only of competing firms, but also of undertakings engaged in earlier or later stages of production. Certain highly important industries, such as the textile and coal trades, have, for reasons which will be given later, strongly resisted the tendency noted above. But there have, in many industries, been fusions aiming directly at the restriction of competition over a nation-wide area. It is these latter combines that have chiefly to be considered here. They are numerous, covering as they do the soap, explosives, thread, calico printing, bleaching, dyeing, alkali, match, tobacco, whisky, industrial alcohol and other trades. Apart from these consolidations, there are in existence hundreds of terminable price-fixing associations covering almost every trade not already controlled by permanent consolidations.

The trust movement—which must be distinguished from the tendency towards simple amalgamation—may be said to have begun during the final decade of last century, within which period many of the quasi-monopolist combines now existing were established. The movement next took chiefly the form of simple association and proceeded with slackening momentum until the war, when it gained renewed vigour, reaching a climax just before the collapse of the trade boom in 1920. The ensuing depression, unprecedented in the history of industry, led quickly to the disruption of many associations and involved even the strongest combines in serious losses. This phase, however, was not to any large extent an outcome of competition, but was rather an expression of much greater economic forces. These external influences are still at work, but over a wide section of industry formal price regulation, assuming in some cases an international character, is the rule rather than the exception.

The method of control has taken various forms, ranging from tacit understandings to actual amalgamations. The former cannot be considered in detail, though it must be recognized that just because they are secret and entirely informal, they may now be very effective, not merely in local markets, as was formerly the case, but in great industries, such as banking, railway transport, and oil distribution, in each of which control has, as a result of recent developments, become centred in the hands of a very small number of firms. It is only in such highly concentrated industries that tacit understandings—or "gentlemen's agreements," as they are sometimes called—can be really effective. In other industries they have necessarily to give way to formal associations duly constituted and registered, but precarious in that any member can violate his agreement or break away and re-enter into competition whenever he chooses.

The associations, which, as a rule, concern themselves only with inland sales, may regulate trade by simply fixing

a schedule of prices, or by regulating output, or by acting as sole selling agents (for which latter purpose they are usually incorporated as companies). In most cases the fixing of prices is all that can or need be done. In others, however—and this is truer to-day than formerly—the control of output is necessary and as a rule practicable. Where it is carried out effectively, the fixing of prices is then a simple matter and may, in fact, often be dispensed with. The method employed is to allocate to each member a fixed percentage or "quota" of the total production of the members of the association. What that quota should be is usually a matter of contention, but once it has been agreed the rest is fairly simple. The members may have to observe a fixed price, but even if they do not, the system by which penalties are imposed for exceeding the quota and compensation paid for falling short of it, removes any temptation to "undercut." For the success of the plan, it is necessary that there should be secrecy and, above all, complete confidence. The procedure is usually somewhat as follows:[1] When the association is formed, each firm gives the secretary—who is nearly always an independent professional accountant—full access to its books. The secretary then determines the percentage of the aggregate trade done by each member over an agreed period, and notifies the member accordingly. Thenceforward at the end of each period—usually a month—the secretary ascertains from each firm its output or sales during the period and, having obtained figures for all the firms, informs each by how much it has exceeded or fallen short of the quota. At the end of the year the "pool" is balanced by the exaction of penalties and the payment of compensation.

The system above described is in operation in a large number of industries, notably the nitrate, tinplate, galvanized sheet, and white lead and red lead trades. A somewhat kindred arrangement prevails in industries in

[1] Report of Committee on Trusts, 1919, page 17.

which tendering for contracts is the custom. In such cases, "the firms agree to submit all tenders in the first instance to their association where the estimates are confidentially registered, and either a percentage, to be subsequently paid in and divided, added to each, or a tender price decided upon which each shall quote on the understanding that the firm receiving the contract shall pay an agreed percentage into the pool."[1] A less questionable method in wide use is for the firms to "send in their individual tenders and at the same time notify the secretary the price they have quoted, whereupon the secretary sends back to each tenderer a list showing not the figure each has quoted, but the order in which the quotations run, the object being to prevent the common practice of going to the lowest tenderer and saying: 'We should like to give you the contract, but we have a lower estimate; if you take 10 per cent less you can have the job.'"[2] This system, like all tendering arrangements, cannot, of course, be fully effective if there are important firms outside the association. In certain engineering industries, where, as a rule, the temptation to undercut is particularly strong, associations insist that members shall leave their books open for inspection, notify inquiries, and submit copies of invoices. Acceptance of an offer below the standard is permitted only where the member can supply written proof that that price has been quoted by a non-member.

Pooling systems, though more stable than ordinary price-fixing regulations, have seldom worked successfully for a long period. They are criticized on the ground that they tend to "stereotype the ground plan of industry"[3] by retarding individual expansion and ensuring a livelihood to inefficient firms. In this latter connection a case is cited where a firm which could not make a profit equal to the compensation payable for short deliveries, ceased to manufacture immediately it became a member, and "has

[1] *Ibid.* [2] *Ibid.* [3] *Ibid.*

ever since continued to draw a handsome income from the pool."[1] This, however, would appear to be a very exceptional case, for there can be few firms prepared to lose their connection in return for an annuity conditional upon the continued existence of such an unstable body as an association. As regards the general effect of the quota system upon output, it is true, of course, that there is no deliberate restriction, except where production has been excessive prior to the formation of the association, for the quota does not represent a quantity of a fixed output, but a percentage of a production which fluctuates according to demand. But this adjustment of supply can hardly be so automatic as under free competition, since the individual members of the association cannot always distinguish immediately between a general expansion in demand and one which applies only to their own penalty-threatened undertaking.[2]

A very different type of association is that which is constituted as a company and acts as a selling agency for all its members. This form of organization—which is very new to English industry—cannot properly be considered a combination or trade union in the legal sense. It is the nearest approach to the German cartel, but differs from the latter in that it has no clearly defined quota system or formal control of output. As a type it is seen at its best in the Sulphate of Ammonia Federation. That company, which controls over 90 per cent of the total domestic production of sulphate of ammonia, takes from its members their output and sells it to the best advantage, co-operating for this purpose with many of the principal producers abroad. One of its chief objects is the establishment and maintenance of a "reasonable price," the latter being evidently defined as "one which is calculated to induce consumption on the largest scale."

It does not appear that the company imposes, or is legally entitled to impose, any conditions in "restraint of

[1] *Ibid.*, page 4. [2] *Statist*, 23rd August, 1924.

trade." The Nitrate Producers' Association, however, which is a rival organization, not only acts as a central selling and price-fixing agency, but rigorously controls the output of its members, allotting to each a quota equal at present to less than half its productive capacity.

The defect inherent in all associations, even in those which are registered as companies, is instability. Their members are united merely by a temporary agreement, and that agreement, being "in restraint of trade," is not enforceable. Consequently, resort is often had to amalgamation, which, however monopolistic, is perfectly legal. The combine may liquidate the associated firms and take over their assets, or—as is now more usual—acquire their ordinary capital and allow them to retain a separate legal existence. In either case, control of the allied businesses passes permanently into the hands of a single company. Whether that control carries with it the permanent domination of an industry, or makes for increased efficiency, depends on a great variety of factors, the examination of which may conveniently be deferred until detailed consideration has been given to the progress of combination as outlined in the following pages. Here it may be sufficient to state broadly that, while amalgamation, except in the case of the leading units absorbed, results as a rule in increased efficiency, yet it does so only up to a certain point, which is often reached long before the dimensions or the power of a trust are attained.

CHAPTER II

THE TEXTILE INDUSTRIES

(*a*) The Cotton Trade

The cotton trade is one of the few sections of industry in which English firms have very little to fear from foreign competition. Not only in the home market, but abroad, their products predominate, exports being valued at nearly £200,000,000 a year. Yet, in spite of this immunity from foreign rivalry and the marked localization of the industry within a small area in Lancashire, competition in nearly all branches is exceedingly active. The reasons are not difficult to find. They are, first, that the very magnitude of the industry—the capital employed probably exceeds £200,000,000—has made for the creation of a great number of enterprises; secondly, that their continued existence has been assured, partly by the marked individualism of the producers and partly by the fact that cotton can, broadly speaking, be produced as cheaply by a small enterprise as by a large one. This might not be the case if the structure of the industry were akin to that of the heavy steel trade. But there is no such resemblance. Most firms confine themselves to a single process. Indeed, not only are the spinning and weaving sections distinct, but they are themselves subdivided, the "Egyptian" section, which uses fine cotton, being practically a separate industry from the "American" section, which uses less high-class material.

The American branch may be considered first. Its spinning spindleage is 38,000,000—or about two-thirds of the total—and is owned by over 450 separate firms, most of which are of a semi-private character. Obviously, with such divided ownership, control could not be imposed. Attempts to restrict "cut-throat" competition have often

been made during periods of acute depression, but they have usually consisted in organizing a voluntary reduction of output and have generally proved futile owing to lack of cohesion. The trade has persistently refused compulsory powers of regulation. In 1922–23, when spinners were losing millions of pounds, certain interests began a strong agitation for a permanent Control Board, armed with legislative powers to regulate output and prices. But the trade—in which it was hoped to include the prosperous "Egyptian" section (presumably for levy purposes)—would have none of it. All that proved acceptable was a voluntary system of short-time working. This system has continued in operation, but has achieved very little success. In June, 1923, the Federation of Master Cotton Spinners' Associations put into operation basic or minimum selling prices, below which spinners were strongly advised in their own, as well as in the general interest, not to sell yarn; but "reports were presented which showed that some firms were not loyally carrying out the recommendation; and following a ballot of the members concerned, which did not secure a sufficiently large majority to continue the working of the scheme, the scheme was reluctantly withdrawn by the Federation."[1]

In June, 1924, the chairman of the Short-time Organization Committee issued a warning that "the trade was passing through a most critical stage, and unless spinners remained loyal . . . disaster was ahead." "I say in all seriousness," he observed, "that any mill that does not adhere to the short-time movement is going to bring ruin upon its shareholders; it is cutting the ground from under its feet by producing yarn that is not wanted by the market and by selling it at a loss."[2] The warning evidently had some effect, a new restriction proposal at the end of June, 1925, being supported by almost 85 per cent of the trade. Still, it is unlikely that organized

[1] International Cotton Bulletin, September, 1923, page 28.
[2] *Times*, 19th June, 1925.

short-time can ever do much good. One defect of the scheme is that it has not been sufficiently elastic. When profitable orders can be obtained for an output approaching that of full-time, the temptation to break away from restriction is too much for the industry.[1] This temptation is, of course, all the greater because of the economic distress that prevails. The banks, which, even in normal times, provide the spinners with a very large part of their working capital, have co-operated in bringing pressure to bear upon recalcitrants, but their compulsion can never be pushed to extremes. A general objection against the scheme is that costs are increased by restriction, while prices, even where they involve a loss to the spinners, are still too high to allow of any marked expansion in demand. At home, perhaps, higher prices could be charged without affecting consumption, but this is scarcely true of the foreign market, which absorbs about 80 per cent of the output and which is, moreover, being catered for to an increasing extent by native mills, particularly in Japan and India. Short-time, to be really successful, should consequently be observed not only by the cotton trade in Lancashire, but also by spinners abroad. The danger of isolated action has been pointed out by the chairman of one of the leading spinning firms:[2] "By working short time, the trade was increasing its cost of production and encouraging foreign competitors to put up more mills, or work the existing mills on two or more shifts. They were playing into their competitors' hands, because other nations were no longer obliged to come to them for the bulk of their requirements. If they unnaturally kept up their prices, their customers would buy elsewhere and the foreign manufacturer would be encouraged to increase his output. . . . The industry ought to abandon organized short time, unless other nations using cotton could be persuaded

[1] *Manchester Guardian Commercial*, 2nd July, 1925, page 1.
[2] Tootal, Broadhurst Lee, annual meeting, 26th August, 1925 (*Manchester Guardian*).

to cut down their production in the same proportion. It seemed useless to pursue this policy single-handed, for by so doing they were helping to keep down the price of the raw material for the benefit of their foreign competitors, who were gradually getting a larger proportion of the available world's trade."

The failure of short-time working to remedy the depression in the cotton industry has recently led the manufacturers to introduce further artificial methods of improving the situation. Thus in August, 1926, the owners of 93 per cent of the spindles using American cotton agreed, as in 1923, to observe a scale of basic prices for standard yarns. In introducing the scheme, the Master Cotton Spinners' Federation announced that the object was "not only to raise prices, but to stabilize them"; and that if the firms concerned held fast, "an end should shortly be put to the deplorable conditions which have existed so long." The new scale of prices, while representing a slight advance, does not cover costs of production, and it is highly doubtful whether sufficient loyalty will be shown to permit of any considerable increase in prices. Nor can much more be hoped of a third and somewhat similar device—the formation of a duly constituted limited liability company whose function will be to fix prices at a level which shall "assure spinners a profit." Its distinguishing feature is its power to enforce loyalty by the exaction of penalties out of a "pool" consisting of shares subscribed by its members. The scheme has received the support of 70 per cent of the American yarn trade, but this proportion would appear to be very inadequate.

It may be concluded that, despite the attempts to suppress it, competition in the "American" section of cotton spinning is exceedingly keen. This is also true of the weaving section, which, though less unprofitable, is even more individualistic than the spinning section. When we turn to the Egyptian or fine cotton trade, we find a

somewhat different position. Here there is one great combine, the Fine Cotton Spinners and Doublers, incorporating about forty firms (some of which are both weavers and spinners), and possessing net assets of nearly £14,000,000. It is very well organized and has nearly quadrupled in size since its formation in 1898. Yet, even now, it is very far from possessing a monopoly, for out of a total of fine cotton spinning spindleage of 19,000,000, it owns little more than 5,000,000. It is true that in certain of the very finest grades of cotton it does hold a predominant position, but even if it had a monopoly in those grades, it could not exploit it to any large extent, for the inevitable result would be the substitution of lower grades. There are many other fine cotton spinners, and conditions favour the rise of new enterprises, the industry being, except for short periods, a prosperous one. This prosperity, moreover, is attracting the sorely-tried American spinners. Their machinery differs in many ways from that used by the fine spinners, and their output caters for a very different trade; but the obstacles to adaptation are not insuperable and they have, in fact, been surmounted by a number of important firms.

(*b*) The Wool and Silk Trades

The Egyptian and American sections of the cotton trade find their counterparts in the worsted and woollen sections of the wool textile industry. The worsted trade, which confines itself to high-grade material, is largely in the hands of joint-stock companies, while the woollen section is mainly carried on by small private firms. The position to-day is little different from what it was twenty years ago, when Professor Clapham wrote that "it is still common to find mills occupied by more than one manufacturer and firms starting with small capital. The small trader rents a few rooms or perhaps a whole floor in a wool mill; while looms belonging to two different firms and driven by machinery which belongs to neither are often found in one

and the same factory.[1] This system of providing factory space, machinery, and requisite power to firms with small capital is naturally extremely favourable to the growth of small concerns. In like manner, the commission system, which exists in every department of the wool trade, but specially in spinning and weaving, encourages the rise and continuance of the small capitalist as a manufacturer by the side of the large concerns.

Except in certain specialized branches, such as the uniform cloth trade, competition in both the woollen and worsted sections has always been active, concentration of ownership, or alliances for the purpose of regulating prices, being impeded by the same factors which operate in the cotton industry. Foreign competition, particularly in the hosiery branch, has become considerable in recent years, but it cannot be held responsible to any appreciable extent for the absence of monopolistic organization in the industry.

In the silk trade, foreign rivalry, which has worked havoc among the home producers during the past fifty years, is in itself sufficient to explain the absence of monopoly. The artificial silk trade, however, which is now six times as large as the real silk trade, presents a very different aspect. It is an entirely new industry, controlled by one firm—Courtaulds—which owes its quasi-monopoly, not to combination, but to the possession of secret processes and patents. Its progress since manufacture was begun on a commercial scale in 1909 has been phenomenal, its capital and reserves, originally very small, being now £26,000,000, and its yearly profits over £5,000,000. Yet its monopoly, impregnable though at one time it seemed to be, is now being dissolved, for several rival processes have been invented and new enterprises are rapidly springing up. Foreign competition, moreover, is steadily growing, though it is true that it is felt only in the lower grades of artificial silk. The company still controls probably more than 90

[1] Clapham, *Woollen and Worsted Industries*, pages 129–131. Quoted by H. Levy, *Monopoly and Competition*, page 197.

per cent of the industry and its products are of marked superiority. But even if it held a permanent monopoly, it is unlikely that its prices would be appreciably higher than they are. A great industry has had to be built up largely at the expense of the real silk, fine and mercerized cotton, and fine wool trades, and prices have had to be brought down to a level which would deflect demand. Apart from this competition (which is likely to become accentuated in future years), it must be remembered that the demand, being for the most part of a luxury nature, is elastic. As the company has itself explained:[1] "It is necessary, as production increases, to make successive reductions in price, in order to make consumption expand *pari passu* with production. In 1924, for instance, we found demand insufficient to balance our production. We accumulated millions of pounds of stock and had to check output. We then reduced our prices . . . Our stocks melted away, and we were able to employ our machinery to its fullest capacity and further to increase production."

(c) The Thread Combines

It has been shown that, with one important exception, the spinning and weaving sections of the cotton and woollen industries are still highly competitive. The exception is fine cotton spinning, which is dominated, in the most exclusive section at least, by a single combine. In the sewing cotton trade the position is somewhat similar. There control has since 1897 been centred in the hands of two firms—J. & P. Coats and the English Sewing Cotton Co. It may appear difficult to understand why in these cases concentration should have been found so easy. A wholly convincing reason is difficult to find, but there is at least the partial explanation that this section was always relatively small and the processes of manufacture exclusive, the result being that the rival firms were never numerous, and that new enterprises could not

[1] *Statist*, 23rd May, 1925.

be established with that facility which is so characteristic of other sections of the textile industry. There was, too, the accident that the thread trade was mainly built up not in Lancashire, but in the neighbourhood of Glasgow where one firm (Coats), having evolved a special method of manufacture, had secured for itself a predominant position. Coats, in 1895–1896, had to absorb only five of its rivals in order to acquire the vast bulk of the trade. It may be merely a coincidence that it should have seized control when so many combinations were being formed in other industries. But whatever decided the actual date of the merger, an immediate result was the separate combination of twenty outside firms, mostly in the Lancashire district. This alliance was inspired by motives of self-defence, but it was not to lead to war between the two groups, for it was mutually agreed that the two parties should "preserve, maintain, and have protection for the trade they have done in the recent past, not interfering with each other's business."[1]

The two combines which thus arose have since greatly extended their respective businesses, particularly in foreign countries. They are not interlocked, either financially or through their directorates; nor are they, by their agreement, bound to act as one company. They merely undertake not to "interfere with each other's business," which means that they are free to compete for new trade. In fact, however, there appears to be little competition between them and, in certain markets, they sell their products in association through the distributing branch of Coats (the Central Agency, Ltd.).

The combines clearly occupy a quasi-monopolist position. Coats alone is believed to control 80 per cent of the trade in household thread,[2] and a "very considerable" proportion of the thread used for manufacturing and other purposes.

[1] Coats' official statement, 10th Nov., 1905 (*Glasgow Herald*).
[2] Second Report on Sewing Thread, 1920, page 4.

The product dealt in could, moreover, be increased in price without appreciably affecting demand. Yet it does not appear that a monopolist policy could be pursued with impunity except perhaps in the case of household thread. Foreign competition, it is true, need not be feared in the home market. But there are in all over sixty thread manufacturers in the country,[1] and some of these are able to compete fairly effectively, at any rate in factory threads, in which quality counts for much less than in household thread. Moreover, the vast bulk of the trade is for export, the proportion in the case of the Coats' combine being about 80 per cent. Competition abroad is keen, despite the control which is held over many foreign companies. The result is that a decline in foreign sales, accompanied necessarily by a fall in prices, always finds a reflection in the domestic market, at least to a partial extent. The control exercised over the trade in household thread is certainly firm ; but even there it must be remembered that, for conventional reasons, demand has been declining for many years, and would continue to decline, even if prices were lower than at present.

Whether from necessity or from choice, the combines appear to have pursued a moderate policy, though they have doubtless charged higher prices than would prevail under free competition. The Government Committee,[2] which investigated the policy of the Coats' combine in 1920, came at first to the opinion that prices were excessive, this view being based on the fact that while the price of raw cotton collapsed early in 1920, no reduction occurred in retail prices until the beginning of 1921. In a later report,[3] however, the committee changed its opinion and described as " justifiable " the prices current in 1921. An examination of the published accounts of the combines appears to confirm the view that present prices are not excessive or, at any rate, that they are not so profitable

[1] *Ibid.* [2] First Report on Thread, 1920.
[3] Third Report on Thread (Cmd. 1173), 1921, page 6.

as in pre-war years. The comparative results are summarized below—

Year	J. & P. Coats			English Sewing Cotton		
	Resources Employed	Return Thereon	Ratio	Net Assets	Return Thereon	Ratio
	£	£	%	£	£	%
1911–12	18,750,000	2,794,000	14·9	3,605,000	250,000	6·9
1912–13	18,885,000	2,774,000	14·7	3,685,000	331,000	9·0
1913–14	18,904,000	2,634,000	13·9	3,780,000	349,000	9·2
1919–20	23,340,000	3,995,000	17·1	4,623,000	768,000	16·6
1920–21	27,240,000	2,072,000	7·6	4,976,000	228,000	4·6
1921–22	26,414,000	3,271,000	12·4	4,815,000	386,000	8·0
1922–23	26,773,000	2,890,000	10·8	4,814,000	691,000	14·4
1923–24	26,753,000	3,107,000	11·6	5,005,000	678,000	13·6
1924–25	26,949,000	3,656,000	13·6	5,183,000	488,000	9·4
1925–26	27,693,000	2,025,000*	7·3*	5,161,000	307,000	5·9

* After deducting arrears of Excess Profits Duty.

It is necessary to point out, first, that the disclosed resources are largely entered at pre-war valuations or less; secondly, that they do not include secret reserves (which in the case of each company are believed to be considerable); and, thirdly, that the results do not take account of the differences that may exist between the profits earned and the profits distributed by subsidiaries. Making reasonable allowances under each head, it would appear that earnings—the great bulk of which is derived from foreign sales[1]—have not been excessive. They have admittedly been far above the average level of earnings in the cotton industry during recent years. But the combines may reasonably argue that if cotton spinners bring ruin on themselves by cut-throat competition and unsound finance, that is no reason why they should follow their example. The Coats' combine has always strongly resented charges of profiteering. Indeed, it was so incensed by criticism in 1920, that it withdrew, at the request of the Government Committee, its system of fixed retail prices—a system

[1] Coats' statement, 15th December, 1922 (*Financial Times*).

which was designed not to protect the combine (as the committee thought), but the distributors. The company has refused to re-impose control, though the retailers have frequently petitioned it to do so, plaintively pointing out that they were impoverished by price-cutting, and were "entitled to a legitimate and fair profit."

It may be affirmed, in conclusion, that, although the thread combines have assumed a quasi-monopolistic position in the domestic trade, yet they do not appear to possess a rigid control over prices, at least as regards factory thread. Their profits do not appear to have been excessive, though since 1920 they have doubtless been far above the depressed level that would have prevailed under conditions of free competition.

(*d*) Dyers' Combines

We have seen that the spinning and weaving branches of the textile industry are for the most part still highly competitive, the principal reason being that the economics of production have made for the formation and survival of a multiplicity of small enterprises, each specializing in a single process of manufacture, and possessed of a strong individualistic spirit. When we turn to the bleaching, dyeing, printing, and finishing trades, a different picture presents itself. In these sections the number of competing firms was never great, for the reason that one establishment could deal with the output of many spinners and weavers. Large-scale organization, moreover, offered a distinct advantage, and the competing firms had always a greater sense of their common interest than those in the primary sections. This found expression in the formation of loose associations and, later, in the creation of some of the strongest combines that exist in England to-day.

In the dyeing trade we find control centred largely in two companies—the Bradford Dyers, dominating the piece-dyeing trade; and the British Cotton and Wool Dyers, dominating the yarn-dyeing trade. Both were formed in

1898, and have since greatly strengthened their influence in their respective spheres. The Bradford Dyers' combine was originally a merger of twenty-two firms, which claimed to control most of the dyeing trade in "Bradford" piece goods. They were not largely interested in the dyeing of ordinary woollens, these being usually finished by the manufacturers themselves. During the decade following its formation, the company acquired over twenty additional businesses and assumed control of the vast bulk of the "Bradford" piece-dyeing trade. It transferred its bleaching business to the bleachers' combine in 1907, but broadened the scope of its main operations by undertaking the dyeing of low-grade material and by extending its influence in the cotton piece-dyeing trade.

The cotton yarn-dyeing trade has already been brought partially under the control of the British Cotton and Wool Dyers. That company, on its formation in 1898, took over forty-six firms whose major activities included not only the dyeing of yarn and piece goods, but bleaching, printing, mercerizing, and slubbing. Though it claimed to have acquired control of nearly 85 per cent of the yarn-dyeing trade, its power proved to be very restricted, and after fourteen years—during which its dividends averaged only about 1 per cent yearly—it was compelled to write off three-fourths of its share capital.

Since 1914 both combines have strengthened their position considerably by internal development and to some extent by the absorption of other firms. Even, however, within their special spheres—yarn and worsted piece-dyeing—they have still to meet considerable competition. The cotton piece-dyeing trade (which is the most important section of all) is not dominated by them, but by an association of which they are members. This association claims to represent "an overwhelming percentage" of the trade, and binds its customers by an arrangement whereby an increasing discount is offered according to the proportion of orders placed with its members. Prior to this

arrangement, which came into force at the end of 1923, it was sought to bind the merchants to deal exclusively with members of the association by offering them a rebate of 10 per cent. This proposal—similar though it was to that which has readily been accepted in many other trades—was furiously assailed by the merchants, who characterized it as an "obnoxious attempt to devise an absolute monopoly."[1] It was, accordingly, withdrawn hastily in favour of the present arrangement, from which in principle, however, it appears to differ little.

It is difficult to estimate the influence of the combines on prices. In 1920 a committee was appointed by the Government to inquire into the matter, but the various firms refused to furnish information; and the inquiry consequently proved abortive.[2] Profits have doubtless been higher than they would have been under more active competition, but it would not appear that they have been excessive. This view is supported by the combines' published accounts—

Year	Bradford Dyers			Cotton and Wool Dyers		
	Resources Employed	Return Thereon	Ratio	Resources Employed*	Return Thereon	Ratio
	£	£	%	£	£	%
1911	5,779,000	334,000	5·8	2,027,000	57,000	2·8
1912	5,843,000	319,000	5·5	2,018,000	46,000	2·3
1913	5,890,000	338,000	5·7	1,007,000†	83,000	8·2
1920	6,779,000	671,000	9·9	1,297,000	161,000	12·4
1921	6,881,000	1,316,000	19·1	1,365,000	96,000	7·0
1922				1,374,000	144,000	10·5
1923	7,084,000	797,000	11·3	1,439,000	200,000	13·9
1924	7,214,000	528,000	7·3	1,498,000	173,000	11·5
1925	7,400,000	259,000	3·5	1,556,000	171,000	11·0
1926	—	—	—	1,609,000	142,000	8·8

* Accounts to 31st March.
† Capital was written down in 1912 by £954,000.

[1] *Statist*, 13th October, 1923, page 503.
[2] *Ibid.* 3rd June, 1922, page 960.

The percentages earned on net assets (i.e. capital employed) are much higher than in pre-war years, notwithstanding that the allowances for repairs and depreciation have been greatly increased and that the volume of trade has shown a considerable decline. But it must be remembered that the general price level has risen sharply, and that post-war earnings are expressed as percentages of assets which are largely entered at pre-war valuations or less. A further test of whether the dyes' charges have been excessive is the ratio existing between the exports of goods in the grey and in the dyed states. The figures seem to acquit the companies, for, although shipments have fallen considerably as compared with pre-war years, the proportion which dyed goods bear to the total has been fairly well maintained.

The conclusion would appear to be that the combines have not abused their power, though their prices have no doubt been higher than they would have been under free competition, particularly in view of the acute depression which has prevailed in the cotton industry during recent years.

(*e*) The Calico-printing Combine

The history of the Calico Printers' combine has been very similar to that of other big amalgamations in the finishing trades. The company was formed in 1899 with the object of suppressing excessive competition; but though it acquired in all over forty-six firms, whose businesses were estimated to comprise about 85 per cent of the total trade,[1] it failed to achieve its purpose. Price-cutting continued to be a characteristic feature of the industry, and the difficulties of the company were aggravated by mismanagement. Outside firms also suffered severely, and in 1912 an effort was made to bring the various parties together and establish a federation for the whole trade. The attempt failed, but was renewed in later years and, thanks to a change of feeling brought about during the war, succeeded.

[1] Prospectus.

The agreement under which prices have since been regulated is rather loose, but it has until recently at least been loyally observed by the various firms, and it is claimed not to have resulted in "profiteering." In reply to complaints before the Committee on Industry and Trade in July, 1925, the federation submitted figures showing that the profits since 1919–1920 of "the three largest public companies in the industry, accounting for 70 per cent of the entire production, had averaged less than 5 per cent per annum on the capital employed in the businesses." The Calico Printers' combine is the largest of the companies, and it is remarkable to find that even though it has acquired over ten additional businesses since its formation, it is merely one of three firms which together account for 70 per cent of the calico-printing trade. It claimed 85 per cent of the trade in 1899, but its earnings now are nevertheless many times greater than then. It paid an average yearly dividend of only about 2 per cent prior to 1913 and, although its position has since been greatly improved, it cannot be considered invulnerable. The following figures, abstracted from the published accounts, are instructive in this connection—

Year to 30th June	Resources Employed	Earned Thereon*	Ratio	Repairs and Depreciation
	£	£	%	£
1911	8,910,000	532,000	6·0	209,000
1912	8,982,000	259,000	2·9	205,000
1913	8,882,000	503,000	5·7	216,000
1914	8,931,000	228,000	2·6	216,000
1923	9,874,000	801,000	8·1	597,000
1924	10,022,000	669,000	6·7	523,000
1925	10,160,000	661,000	6·5	503,000
1926	10,309,000	344,000	3·3	512,000

* After deducting repairs and depreciation.

The increase in earnings since pre-war years is remarkable, bearing in mind that the volume of trade has fallen by over 30 per cent, and that the allowances for repairs

and depreciation have been greatly increased. Doubtless the improvement is due in part to the imposition of price control. But probably a more important factor has been the change in the general price level. To allow for this, the earnings should be expressed in terms of pre-war values, which is, in fact, the basis on which the assets are mainly valued. It is true, perhaps, that the assets were much too highly valued in pre-war years, but the heavy provision which has since been made for depreciation should by itself have made good any deficiency that may have then existed. Assuming, however, that, despite the excessive provision for depreciation and the general inflation of values, the assets are worth only their present book value, the earnings thereon would still appear to be very moderate. Indeed, the results for 1925–1926 would suggest that competition is again becoming very active in the industry.

The calico printers, so long as they remain associated, as at present, may be able to maintain prices at more profitable levels than exist in the spinning and weaving trades. But, like the dyers and bleachers, they cannot ignore that goods can be sent abroad to be treated if the home charges are excessive. This is particularly true of calico-printing, for it is in this trade that foreign firms have made most progress; moreover, cotton goods of the kind usually printed are just those in which Lancashire is losing its supremacy. There has been no appreciable increase in the proportion of goods sent abroad for printing, but it is significant of the progress of the foreign textile industries that the exports of cotton prints in 1925—650,691,000 sq. yds.—were practically 35 per cent less than in 1913.[1]

(*f*) The Bleachers' Combine

The Bleachers' combine occupies in its sphere a position which, though not monopolistic, may yet be described as predominant. It confines itself largely to the bleaching

[1] Board of Trade Returns.

and finishing of cotton piece goods, and is unique in that it represents a merger of no less than seventy-eight separate firms. Over fifty of these were included in the original amalgamation in 1900, but their fusion served more to stimulate than to weaken outside competition; and even now, when, as a result of systematic acquisitions, the total number of firms absorbed is much greater, the combine has still to meet considerable rivalry. It is incorrect to say, as Professor Levy does,[1] that "its chief protection against external competition rests on its monopoly of the water supply." It has no monopoly, nor did it ever claim more than that "the great and ever increasing difficulty of obtaining a sufficient water supply makes the position of established bleaching works very strong."[2]

The history of the company shows clearly that whatever situational advantages it possessed have conferred little protection against external competition. Its average yearly dividend was less than 3 per cent during the first decade, and over the past twenty-five years has been only 7 per cent. Recent results have been as follows—

Year to 31st Mar.	Resources Employed	Earned Thereon*	Ratio	Repairs and Depreciation
	£	£	%	£
1912	7,443,000	473,000	6·4	267,000
1913	7,675,000	535,000	7·0	294,000
1914	7,843,000	525,000	6·7	286,000
1922	9,200,000	755,000	8·2	601,000
1923	9,368,000	890,000	9·5	605,000
1924	9,516,000	896,000	9·4	574,000
1925	9,674,000	952,000	9·8	579,000
1926	9,864,000	866,000	8·8	601,000

* After deducting repairs and depreciation.

The post-war profits may at first sight appear to be excessive, having regard to the contraction in the volume of trade, and the heavy increase in the allowance for repairs and depreciation. But when they are expressed

[1] *Monopoly and Competition*, 1909, page 252.
[2] Prospectus, 1900.

in terms of pre-war values—as they should be, for comparative purposes—they are found to be quite moderate. Even as they stand, they are low in relation to the capital employed, and the assets represented by that capital are very largely entered at pre-war valuations. It is, in short, the rise in the general price level and not the particular price policy of the company itself that explains the apparent increase in prosperity. A monopolist policy might, within certain limits, be possible if the loose association at present existing between the various bleachers and finishers were more comprehensive. But, even then, merchants would have the option of sending their goods in the unfinished state to foreign bleachers. If it could be shown that such exports had risen disproportionately, there would perhaps be presumptive evidence that bleaching and finishing charges in this country were excessive. But the official returns indicate that though the aggregate exports of cotton piece goods have fallen since 1913, the decline in grey goods has been as great as in bleached goods. It may be concluded that while the combine dominates the bleaching trade and is loosely associated with its rivals, the prices charged by it have not been exorbitant.

CHAPTER III

THE COAL INDUSTRY

BEING non-reproducible and easily stored, minerals, where concentrated in small or widely separated areas, are readily adapted for monopolization.[1] The possibilities of successful control have, however, been greatly reduced by the discovery of new sources of supply and by the development of transport. The history of industrial organization is, indeed, replete with instances of the decay of mineral monopolies, and though some are still in existence—as in the potash, nitrate, and diamond trades—the tendency is generally towards greater freedom of competition.

The coal industry in England, favoured though it is by complete immunity from foreign rivalry in the domestic market, provides no exception to this tendency. There vigorous competition has prevailed ever since the monopolist " Vend " of Durham—at one time the only source of supply—was destroyed in 1844 by the opening up of new districts and by the improvement of transport, the result of these developments being the creation of a multiplicity of producers and of a fivefold expansion in output. Yet, in spite of the obstacles, several attempts have, at times of acute depression, been made to reimpose a monopoly in the industry. The most ambitious was the Elliott plan of 1893, which sought to merge all the collieries into a single trust.[2] The scheme was turned down because the conditions of production and sale were considered too diverse, the producers too numerous, and the valuation of their properties too difficult. It is probable, however, that another important cause of the individual owners' lack of enthusiasm was the belief that the depression which the scheme sought to cure was merely temporary. The

[1] The substance of this chapter is taken from the *Statist* of June 26, 1926.

[2] Levy, *Monopoly and Competition*, 1909, page 184.

same reason, reinforced by a fear of competition from outside districts, helps to explain the failure of a plan which Lord Rhondda put forward in 1896 for a steam coal cartel in South Wales and Monmouth.[1] Referring to the position in that district, he said: " Thirty companies produce over 90 per cent and about fifty companies produce 95 per cent of the total output. If it were possible to get the twenty companies or collieries constituting 80 per cent of the output to combine, the combination would, in my judgment, be sufficiently powerful to control and regulate the steam coal trade of South Wales and Monmouth." A scheme was drafted and 80 per cent of the producers were reported to have promised allegiance, but the coal-owners' association for the district considered a minimum of 95 per cent necessary, and the plan was consequently abandoned.

Not until the depression of 1921–1922 was any other comprehensive scheme seriously considered, and the initiative then also came from South Wales and Monmouth producers. In 1921 their association (which includes practically all the coal owners in the district) attempted to enforce minimum prices immediately after the withdrawal of State control, but there occurred instead a fall of over 70 per cent in quotations before the year had closed. In June, 1922, however, the position had become so perilous that the association, acting under the pressure of the miners as well as of the owners, drew up and introduced a comprehensive scheme to " stabilize and prevent unnecessary reductions in the selling prices of coal produced at collieries in Monmouthshire and South Wales." The companies were divided into six groups, or " divisional committees," each representing one particular class of coal; these groups held separate weekly meetings and communicated their decisions to one another, and the respective chairmen then conferred " for the purpose of reviewing the position of all the groups and deciding whether any recommendations shall be submitted to a divisional committee

[1] *Ibid.*

for its consideration." This plan was strictly observed; but when, some months later, demand and prices improved, it was set aside as unnecessary. In June, 1924, it was revived (though without any binding provision); while, independently, the salesmen of the combines producing the bulk of the output met regularly and fixed their own prices for specified periods, usually of short duration.[1] These attempts to control prices quickly proved abortive, however, and prices have, since the end of 1924, been very unremunerative.

In most districts, of course, small local associations have long been in existence. These are not primarily concerned with prices; and one of their members, in giving evidence before a Board of Trade committee in 1915, was at pains to point out that they "as associations" have no "authority" to deal with prices.[2] . . . "We meet to confer about prices, but our associations are not in any way rings: we are not strong enough. . . . We have no association which embraces the whole of the producers of our district . . . and we have to meet whatever competition there may be from other districts." Another witness, speaking for the Lancashire and Cheshire association, remarked that though that body "fixes the price absolutely to the consumer" . . . "anything which is done in the nature of trying to keep prices from slumping unduly is very often interfered with by defections . . . and by dumping from other districts."[3] To-day, there is probably less disloyalty, but competition is more virulent than ever.

Though a trust movement is non-existent in the industry, there are certain tendencies which may eventually bring it into being. It is noticeable that while the output has during the past eighteen years declined from 267,000,000 tons to about 250,000,000 tons, the percentage produced by the largest firms has increased; while coincident with

[1] *South Wales Journal of Commerce Review*, 1925, page 39, and 1926, page 42.

[2] Retail Prices Committee, page 160. [3] *Ibid.*, page 183.

the integration and amalgamation of the metallurgical industry, many producers have passed under the control of iron and steel undertakings. Since 1890 over 120 collieries, representing an output of probably more than 40,000,000 tons, have been, in fact, absorbed or amalgamated. It is remarkable, however, that the purchasers have been mainly undertakings which are, or were, primarily engaged in the production of iron and steel, and to that extent were inspired primarily by a desire to obtain cheap and certain supplies of fuel. This intrusion of iron and steel into the sphere of coal is particularly marked in South Wales, where it has been carried far beyond the limit required to safeguard supplies. Thus almost solely as a result of absorptions, we find that five iron and steel concerns control about 40 per cent of the coal output of South Wales and Monmouth. But in connection with this concentration, it must be remembered that of the production controlled by iron and steel undertakings—which may be estimated at less than 30 per cent of the total national output—the bulk of it is used at the works and does not, therefore, compete in the open market. For this reason the danger of a coal trust in South Wales is more apparent than real. That district has an advantage in that it is compact and fairly isolated, and produces, chiefly, steam coal of an unrivalled quality. Prices consequently could be fixed with some degree of autonomy, but beyond a certain point there would, in the absence of an understanding, be competition from outside districts ; for, though steam, household, gas, and manufacturing coals are not ordinarily mutually competitive, any undue advance in the price of one class, or in a particular variety of one class, will inevitably lead to substitution. This is also true, though to a less extent, of anthracite, which is a coal of unique quality and confined almost entirely to a small district in South Wales. As a result of a series of recent amalgamations, ten firms now control about 80 per cent of the trade, and though there are many small virile producers,

the formation of a trust should not be very difficult. As the total annual production, however, is scarcely 5,000,000 tons, and only about half that quantity is sold in the domestic market, it is a relatively unimportant section of the coal industry.

The position to-day is that there are in the industry about 1,400 separate undertakings.[1] But of these it is officially estimated that 715 produce over 98 per cent, 467 over 93 per cent, and 323 over 84 per cent of the total output of the industry. These estimates are probably unduly conservative, or fail to draw a distinction between controlled and independent undertakings. Actually it would appear that sixty undertakings control over 50 per cent, and 160 about 75 per cent of the total output. Taking the industry by districts, the degree of concentration is found to be particularly marked in South Wales and Monmouth, where fourteen firms control about 80 per cent of the production. Twenty-five companies control nearly all the output of Durham; sixteen, 50 per cent of the output of Derby, Nottingham, and Leicester; and nine, 50 per cent, of the output of Scotland. The number of really important producers is not, therefore, very excessive. That it may in time be reduced to an extent permitting of the formation of cartels or trusts is not impossible, for many of the poorest mines are now being weeded out by trade depression, and the Government has decided to accelerate the natural process by strong support of amalgamation, arming itself for this purpose with compulsory powers. This latter course is based on the finding that "the size of the undertakings usual in the coal industry is not economically the best,"[2] and that "the amalgamation of many of the present small units of production is both desirable and practicable."[3] This conclusion, which forms the central theme of an admirable report presented in 1926 by a Royal

[1] Report of Royal Commission on Coal (Cmd. 2,600), 1926, page 47.

[2] *Ibid.*, page 57.

[3] *Ibid.*, page 233.

Commission, is, however, probably true only to a very limited extent. It is based fallaciously on the following official returns, showing the working results of colliery undertakings of various sizes—

WORKING RESULTS (JANUARY TO JUNE, 1925)*

TONNAGE RAISED

Yearly Output of Undertaking: 1,000 Tons	Number of Under-takings	Total (1,000 Tons)	Percent-age of Total	Output per Man-shift	Pro-ceeds	Costs	Profit (+) or Loss (–)
				Cwt.	Sh. per Ton	Sh. per Ton	Sh. per Ton
Less than 5	10	32	—	12·78	23·51	32·01	– 8·50
5 and under 200	307	27,360	12·7	16·22	19·02	20·23	– 1·21
200 " 400	126	36,394	16·9	17·05	18·43	19·21	– 0·78
400 " 600	72	35,118	16·3	18·34	17·90	18·04	– 0·14
600 " 800	28	19,132	8·9	18·86	17·58	17·82	– 0·24
800 " 1,000	20	17,992	8·4	18·68	17·52	17·65	– 0·13
1,000 " 2,000	42	56,280	26·2	19·66	17·77	17·49	+0·28
2,000 and over	8	22,744	10·6	19·76	17·39	17·11	+0·28
All	613	215,052	100·0	18·32	17·98	18·23	– 0·25

* Coal Report (Cmd. 2600), 1926, page 54.

The output per man-shift is seen to rise with almost complete regularity from 16¼ cwt. in the smallest class of undertakings, producing less than 200,000 tons a year, to 19¾ cwt. in the largest group, producing 2,000,000 tons and over. Costs of production per ton fall with absolute regularity from 20·23s. in the smallest group, to 17·11s. in the largest group—a difference of more than 3s. per ton. The difference in costs is partly offset by an opposite tendency in respect of proceeds, the smaller undertakings getting the larger price. In spite of this advantage, which may be due either to the fact that the smaller undertakings are working special qualities of coal, or are near good markets, the larger undertakings remain substantially the more profitable on balance. The Commission hastily concludes that " there are great advantages in large-scale production which are not now being realized."[1] It fails to perceive the self-evident fact that the large collieries are the more

[1] Report of Royal Commission on Coal (Cmd. 2,600), 1926, page 57.

profitable not so much because they are large, but because they own, as a rule, much better seams than the small undertakings. Size doubtless counts for something, but beyond a certain point, which is often reached at an early stage, it appears to confer little advantage. The Commission appears, momentarily, to have realized this vital point in the course of its inquiry, and while recommending amalgamation, to be carried through if necessary by Government compulsion, emphasizes that "the fusions that are desirable must be effected with great care, and with intimate knowledge of the physical and financial considerations involved in each case; and that any measure that fixed a general rule of size or output, and applied it uniformly without regard to individual conditions, could only be mischievous."[1]

The obstacles hindering fusion even where that is economically attractive, are undoubtedly serious. There are such questions as: "Which of the old concerns is to be predominant in the new combination? Which of the directors and managers are to be displaced? What is the valuation to be put upon each of the properties? How much above its market value are the promoters ready to pay to the owners of an adjacent colliery rather than surrender the completeness of their project? And, a not unimportant factor in some cases, is it certain that the owners of the royalties will be ready to grant the leases, longer in time and more extensive in area, that may be necessary to make the larger enterprise more remunerative? When to all these difficulties is added the *vis inertiae* which hampers all new projects in all old-established industries, we have an explanation of the slowness of the movement."[2] More important considerations as a rule are the absence of any conclusive evidence that amalgamation will be sufficiently beneficial, the generally prosperous position of

[1] Report of Royal Commission on Coal (Cmd. 2,600), 1926, page 44.
[2] *Ibid.*, page 60.

the industry until recent years, and the diversity of the conditions of production and sale.

In its diversity the industry is comparable only with agriculture. "There are geological differences—the depth of the coal seams from the surface; the thickness of the seams; the chemical composition of the coal, making it specially suitable, as the case may be, for household purposes, for coking, for the production of gas, for the heating of steam boilers, for the possible production of oil, or of other by-products; the degree of its mixture with dirt or with other impurities; the soundness or unsoundness of the roof and floor in the workings of the mine; the quantity of water to be dealt with in sinking the shafts and in working the seams; the degree of danger from gas; the presence of faults in the seams and their inclination; the gradients at which the roadways have to be made through the coal. There are geographical differences—in respect to the proximity of the coal deposit to a market or to a port; the suitability of the surface for the proper lay-out of a colliery; the presence of ample supplies of water for the condensation plant and other purposes; the availability of housing for the persons employed. There are differences due to variations in the working customs of the districts, the outcome of a long development among a population mainly stationary; customs relating to the rates of wages; the grant of free houses, or of allowances in lieu, and of free or cheaper coal; the working of two or more coal-getting shifts in the day, or of only one; the arrangements as to holidays; sometimes, within the limits allowed by State regulation, there are still different practices as to the hours of labour. There are differences due to the history or character of a particular mine; its original lay-out, the boundaries of the area leased from the surface owners, the extent of the unworked reserves. All these diversities are special to the mining industry. In addition, there are the differences that are to be found in all industries—in the degree of competence in the management of

each business, the soundness or unsoundness of its financing, the availability of the capital needed, the size of the undertaking in relation to the most economic methods of production.

"The industry cannot, therefore, be regarded as a collection of more or less uniform undertakings, employing so many men under conditions fairly similar, producing a single article, the costs of production, and the price obtained varying little among them at any time. The industry may indeed be imagined as not unlike a series of farms in a country of valleys and mountains, varying in their productivity from the fat lands by the rivers, through medium lands on the lower slopes, up through farms of gradually decreasing fertility, to fields that are half rock at the limit of cultivation on the higher slopes. The question for the agriculturist is how far up the mountain-side it is worth while to spend labour. And that depends upon the cost of labour at the time and the degree of hardship that the cultivator is willing to endure. In the mining industry the productivity of each individual mine is due, not only to its physical characteristics, but to a combination of the many factors that have been mentioned."[1]

To sum up. Despite immunity from foreign rivalry, competition in an acute form still predominates in the English coal industry. The contrast in this respect with conditions prevailing abroad is easily explained. Combination in Germany and in the American anthracite fields has been greatly facilitated by the concentration of deposits within relatively small areas, or within a few districts so widely separated as to be largely non-competitive; by the consolidation of the iron and steel industries; and by the historical circumstance that the number of producers was never very large. In England, the absence of coal cartels and trusts is commonly attributed simply to the multiplicity of producers. But this is merely begging the

[1] Report of Royal Commission on Coal (Cmd. 2600), 1926, page 44.

question, How did so many of them come to be created, and why have they so stubbornly resisted the general tendency towards combination? The chief reasons would appear to be, first, that the English coal industry was established at a relatively early stage of modern capitalism; secondly, that the terms under which the original leases were granted, the diversity of geological conditions, the special ease with which coal could be mined, and the phenomenal growth of consumption made for the creation and continued existence of many enterprises; and, finally, that given equally good seams, a moderately-sized colliery concern can, generally speaking, work as efficiently as a large one. For these reasons the creation of a trust in the industry appears to be quite impracticable, however desirable it may be in the interest of producers whose mutual strife is one of the main causes of their present deplorable condition.

CHAPTER IV

THE IRON AND STEEL INDUSTRY

(*a*) Concentration of Ownership

In the iron ore trade, monopoly has been prevented by circumstances quite different from those which obtain in the coal trade. There production is virtually confined to small areas in the contiguous counties of Lincoln, Northampton, York, Cumberland, and Leicester. The mines, moreover, are in comparatively few hands, and many of them are controlled by groups of iron and steel makers. But even if they were under one ownership, monopoly would still be impossible, for the reason that there is very active foreign competition, more than half the total ore requirements of the country being supplied from abroad.[1] It is, in fact, often the case that manufacturers find it better at times to close down their own mines and use imported material. Nor is the competition confined to direct importation of ore. It extends in a rapidly-growing degree to raw iron and steel; so that even if, because of the introduction of Protection or for any other reason, foreign ore were entirely excluded, the domestic mine owners would still have merely a partial monopoly. Indeed, even if not only the importation of ore but of manufactured iron in its raw state or as steel were excluded, it would merely accentuate the already marked preference that exists for foreign semi-finished material. In several of the final stages of production, there is, it is true, freedom from foreign rivalry, but that immunity, being largely based on the free importation of foreign raw material, would be weakened in the event of Protection being granted to the

[1] Statistics of the National Federation of Iron and Steel Manufacturers, 1925.

primary producers, unless the latter refrained from exploiting their monopoly.

The preliminary exclusion of home competition in an industry whose invested capital exceeds £150,000,000[1] is obviously extremely difficult, but notice must be taken of two very definite trends, the one making for concentration of ownership, the other for loose alliances. As to the first, it has to be observed that the iron and steel industry is one in which the individual unit has, for technical reasons, to be very large. Moreover, where the competing units amalgamate, it is very often found necessary, or at least desirable, that control should be obtained of supplies of raw material, if not also of the channels of marketing. The need for such control is felt to be all the greater when supplies cannot easily be obtained either because of monopoly or because of dislocation (as during the war period 1914–1920).

To-day, it is no longer true—as it was when Jeans wrote in 1903—that "the majority of the works engaged in pig-iron making in this country are pig-iron makers only, having to buy all their raw materials."[2] Nor is it true to say, as Levy affirmed in 1909,[3] that "in the English steel industry a steel works is by no means always combined with a blast furnace," or that "the large blast furnaces are still dependent on the sale of their material." The change has come about much later in England than in foreign countries, the reason being that, in England, until the war period 1914–1920, there had been no difficulty in obtaining ample supplies of iron ore, coal, and pig iron at reasonable prices, whereas abroad the manufacturer had from the beginning been hindered from obtaining supplies by the operation of quasi-monopolies or protective tariffs.

[1] Evidence of Sir Wm. Larke, given before Committee of Industry and Trade, 1925.

[2] Jeans, *The Iron Trade of Great Britain*, 1906, page 175. Quoted by Levy, *Monopoly and Competition*, 1909, page 188.

[3] Levy, *Monopoly and Competition*, 1909, page 201.

The tendency towards concentration both between competing and non-competing firms may be illustrated by a few figures. Twenty years ago, indeed so recently as 1914, there were about 100 pig-iron producers and 102 steel makers. To-day, notwithstanding an increase of about 50 per cent in productive capacity, their numbers have been reduced by combination to about 70 and 75 respectively. Probably more than 75 per cent of the output of pig iron is controlled by thirty firms, and nearly all these hold, moreover, an equally prominent position in the steel industry, this fusion of the two sections being primarily due to amalgamation. In the trade in semi-finished and finished products the tendency since 1914 has been somewhat similar, an increase in productive capacity being accompanied in most sections by a net decline in the number of competitors, involving in some cases the concentration of the bulk of the production in the hands of single combines. This tendency is strange, for as production becomes more specialized, the economies of large-scale organization diminish and new enterprises can be more easily established. Competition among the primary producers has, besides, accelerated the natural tendency for such firms to enter the more profitable finishing trades instead of confining themselves merely to the production of raw iron or steel. The degree of concentration existing in the finishing trades is illustrated by the fact that there are, to-day, only about 28 independent makers of tinplate and sheet bars, 23 of wire bars, 15 of heavy rails, 16 of ship-plates, 25 of boiler plates, 22 of girders and joists, and 31 of galvanized sheets.[1] There are still, it is true, about 55 independent makers of tinplates, 65 of wrought iron, 41 of wire nails, and 200 of bolts and nuts. But these numbers disguise the fact that in each of the four cases a great part of the output is controlled by single companies.

Combination in the primary branches of the industry is most marked in the North-Eastern and Welsh districts.

[1] Ryland's *Directory*.

The first-named, which produces about a quarter of the national output of iron and steel, is dominated by Dorman Long, the Furness group, Bolckow Vaughan, the Consett Iron Co., and Pease & Partners.

In the South Wales district, which, like the North-East coast, produces about 25 per cent of the national output of iron and steel, the industry is largely in the hands of Guest Keen & Nettlefolds, Ebbw Vale, Baldwins, and Richard Thomas. These firms each owe their size primarily to amalgamation.

The Midland makers of pig iron produce about 22 per cent of the national output, but they are, as a rule, much smaller and more numerous than those on the coast; and, though often controlling their own ore and coal supplies, are rarely interested in steel, the manufacture of that product being left largely to specialized firms in Sheffield (which is the centre of the district). On the other hand, many of the iron makers convert their output into finished iron products. The chief iron producers in the district are the Staveley Coal & Iron Co., the Sheepbridge Coal & Iron Co., and the Stanton Ironworks. The steel makers in the Midlands have not favoured amalgamation, either with one another or with iron or coal producers, and in this respect they present a curious contrast with those in other districts. There is, however, one outstanding exception, namely, the United Steel Companies, which, as a result of a series of post-war amalgamations, has become the second largest undertaking of its kind in England. Its output is marketed as semi-finished material, rails, plates, and wire rods.

The only remaining district of special importance is Scotland, which produces about 9 per cent of the national output of pig iron and 15 per cent of the output of steel. There are about twelve separate concerns in the district, the largest being William Baird and David Colville. The first has an annual productive capacity of several million tons of coal and is, probably, the second largest British

producer of pig iron, most of its output being sold in the raw state. The Colville undertaking, which owes its importance very largely to war-time amalgamation, is the largest English steel maker, its present productive capacity being 1,200,000 tons yearly, or about one-tenth of the total national capacity. Its principal finished products are shipbuilding and constructional material, and black and galvanized sheets. It does not own ore mines, but it has collieries capable of yielding nearly 1,500,000 tons of coal.

(*b*) Associations

The foregoing survey shows, first, that expansion in the iron and steel industry during recent years has been met not by the creation of new enterprises, but by the development of existing ones; secondly, that the latter have shown a marked tendency to amalgamate, particularly in the primary branches; and, thirdly, that nearly all the leading undertakings have become "integrated" in structure. This latter position has been brought about either by amalgamation or by a slow process of internal development culminating in the control of the final stage of production. The effect in either case has been greatly to reduce the proportion actually marketed of ore, raw iron, steel, semi-finished material, and even of certain finished material. But just for this reason it should also be borne in mind that though thirty companies probably control over 80 per cent of the output of pig iron and of steel, their influence on the open markets for those products is not proportionately great. Other makers, it is true, also use part of their own output, but the percentage in their case is on the average much less. In the "finishing" branches of the industry the volume of independent marketing has not, of course, been affected; on the contrary, the invasion of those sections by undertakings which were at one time primary producers has increased rivalry; and if the present wide disparity in price levels continues, further incursions of this kind will be greatly stimulated.

Though concentration of ownership has reached an advanced stage, in no section of the industry has it developed so far as to give any undertaking a monopoly or, with one or two possible exceptions, even predominance. But by reducing the number of rival enterprises and raising obstacles against new ones, it has greatly facilitated the formation of price-fixing associations. A number of such bodies have sprung up since the beginning of the present century, and now permeate nearly every branch of the iron and steel industry. Some of them are informal, bound only by tacit agreements; others are highly organized; all are alike in that they lack permanence, or at least the power to maintain for long periods a really effective control.

In 1919, a Government committee gave the list, shown on page 42 (which "did not purport to be at all exhaustive"), of associations, "nearly all of which were definitely known or believed to be engaged in regulating prices and output."

During the post-war boom these associations found no difficulty in fixing minimum prices, but the depression completely changed the situation, and by the middle of 1922 most of the associations had either been dissolved or had ceased to exercise any control over prices. They were revived during the trade recovery of 1922–1923, but foreign competition soon reasserted itself, and price control in most branches of the industry again became largely nominal.

Steel Makers' Association

Passing on to examine the position of the leading associations, we find that the North-East coast, Scotland, and South Wales have each separate steel associations, which were formed respectively in 1901, 1903, and 1906. The two first-mentioned districts came to an agreement for the division of markets in 1904, and later joined hands with the Welsh makers. This arrangement, which did not

Trade	Association	No. of Members
Pig Iron	Cleveland Ironmasters' Association	17
	Scottish Ironmasters' Association	12
	South Staffordshire Ironmasters' Association	—
	West Coast Iron Committee	7
	Ferro-Manganese and Spiegel Association	5
Wrought Iron	English and Scottish Forge Masters' Association	18
	Federated Forge Masters	13
	Midland Forge Masters' Association	—
	Lancashire Bar Iron Association	—
	Scottish Bar Iron Makers' Association	13
	South Yorkshire Bar Iron Association	10
	North-East Coast Bar Iron Association	5
Cast Iron	Cast Iron Hollow-Ware Makers' Association	—
	British Cast Iron Pipe Founders' Association	—
	National Light Castings Association	—
Steel	Scottish Steel Makers' Association	7
	North-East Coast Steel Makers' Association	10
	South Wales Siemens Steel Association	8
	The Ingot Makers' Association	—
Steel Castings	Steel Castings Manufacturers' Association	20
Rolled Products	British Joist Makers' Association	9
	British Rail Makers' Association	16
	Billet Makers' Association	—
	Midland Steel Angle Makers' Association	6
	Small Steel Bar Association	8
	Sheet Makers' Conference	31
	Welsh Plate and Sheet Makers' Association	—
	Rod Rollers' Association	11
Miscellaneous	Bedstead Makers' Federation	—
	Iron and Steel Wire Manufacturers' Association	29
	Midland Bolt and Nut Manufacturers' Association	30
	Lancashire and Yorkshire Bolt and Nut Makers' Association	25
	Cut Nails Association	—
	Tube Makers' Association	32
	Weldless Steel Tube Makers' Association	7
	Wire Netting Association	10
	Railway Tyre and Axle Makers' Association	14
	Railway Wheel and Axle Makers' Association	15
	Steel Rope Wire Makers' Association	—
	Coil Spring Makers' Association	—

embrace foreign trade, continued with some modifications until 1922, when price control in each area broke down. By November, 1923, conditions had changed, and the members of the three groups, together with the Midland makers, combined to form the Steel Manufacturers' Association. A new agreement was then made fixing minimum home prices for ship plates, sections, and joists, without, however, any limitation on the area of sale. But, again, competition became too severe; the minimum prices became maximum prices, and later had very little relation to the quotations at which a good proportion of the business in iron and steel was done.[1] Two important north-eastern coast firms which were in a strong competitive position withdrew from the association; and in April, 1925, all pretence at control was dropped. That the north-east coast makers were "disloyal" is clear, but they would not have been were it not for foreign competition, to which they have always been especially subject. Thus, the imports of steel plates and sheets in the first four months of 1925, compared with the corresponding period of 1924 (which was itself marked by heavy foreign dumping), rose by 91 per cent; of steel girders, beams, and joists by 90 per cent; and of iron bars, rods, angles, shapes, and sections by 45 per cent. In the case of semi-finished steel and pig iron, the imports also rose very sharply and, though representing only a small part of the total trade, exercised an exceedingly depressing influence not only in their own particular market, but throughout the later stages of production. The Steel Manufacturers' Association, though ceasing temporarily to regulate prices, remained in existence; and in April, 1926, took advantage of a decline in foreign competition to re-impose control, prices for the home trade and, in one case, for export being substantially increased.[2] Clearly, however, its position must always be precarious in the absence of an alliance with foreign competitors.

[1] *Ironmonger*, 25th April, 1925. [2] *Times*, 17th April, 1926.

The Tin-plate Conference

The absence of foreign competition and the concentration of manufacture within a small area in South Wales and Monmouthshire are two factors which greatly facilitate the regulation of prices in the tin-plate and black-plate trade. A monopoly has, however, been rendered impossible by the multiplicity of producers, their strongly-marked individualism, and their dependence on foreign markets. The trade, though perhaps the second greatest in the steel industry, is one in which small enterprises have been well able to hold their own against large composite undertakings, owing partly to their ability to obtain cheap supplies of steel bars from abroad. The tendency, it is true, has in recent years been towards amalgamation, but there are still about fifty independent makers.

The difficulties of control in the trade are illustrated by recent events. For a long period prior to the depression of 1921, an association, while leaving prices to find their own level, regulated output under a pooling system, whereby members who produced more than a certain quota had to compensate those who produced less. The association broke down during the depression, but was revived in a different form in October, 1922, when tin-plate, terne-plate, and black-plate makers, representing about 97 per cent of the industry, agreed to observe fixed minimum prices and not to buy their supplies of steel bars from any makers other than those who were members of the South Wales Siemens' Steel Association.[1] The latter, whose members comprised almost the whole of the Welsh steel industry, and who were nearly all engaged in the tin-plate trade, agreed on its part to sell steel bars at a fixed price for a definite period, with monthly rebates to members of the Tinplate Conference. The agreement was completely successful, first, in raising prices, and then in "stabilizing" them, but on each successive occasion on which the agreement came up for renewal a slowly-growing discontent

[1] *Statist*, 30th June, 1923.

evinced itself. It was felt by some manufacturers that others were stealing their trade, and towards the end this suspicion was confirmed by an official investigation, which showed that many works were allowing secret rebates to selected merchants.[1] In order to effect a fair distribution of orders, it was then decided to reintroduce the old pooling scheme, by which members making more than their quota compensated those who made less; the understanding was a verbal one, however, and the attempt to enforce it merely precipitated the collapse of the association. The prime cause was disloyalty, and that in its turn was induced by the reaction in trade during the first four months of 1925, orders during that period having fallen to about 60 per cent of the capacity of the industry. That decline in its turn was partly due to a weakening of competitive power abroad as a result of the artificially high price at which tin-plate makers were compelled to buy steel bars. The fact that the price, allowing for the rebate, was originally lower than could be obtained from outside steel firms compelled tin-plate makers to join the association, but the advantage in price disappeared towards the end, and the manufacturers began to use large quantities of foreign material. Thus the import of tin-plate and steel bars rose from 145,000 tons in 1923, to 378,000 tons in 1924, and in the first four months of 1925 were twice those for the corresponding period of 1924. The conference was revived early in 1926, and has since functioned fairly successfully, partly perhaps because it attends not to prices, but to output, allotting to each member a quota of production which, if exceeded, involves the payment of heavy penalties into a pool out of which firms falling short of their quota are compensated. The conference does not fix prices, but leaves their arrangement entirely to the manufacturers, who, however, are restrained from "undercutting" by the imposition of penalties for excess deliveries.[2]

[1] *Ironmonger*, 9th May, 1925.
[2] *Statist*, 13th February, 1926, page 257.

In passing, reference may be made to the rise of a central selling syndicate representing the interests of the Thomas combine and ten other makers. This novel enterprise, which is registered as a company under the title of the South Wales Tinplate Corporation, claims through its members to control about 60 per cent of the output of tin-plates. The actual percentage is probably somewhat lower (and if terne- and black-plates are included may not exceed 45 per cent), but even if the proportion were as high as 80 per cent, it is very doubtful whether the combine and its associates could control prices. It is true that there is practically no foreign competition in the home market, but there are about fifty-five[1] separate enterprises, and several of these are highly efficient. The rise of the combine is, however, a very interesting development, which may possibly lead eventually to the suppression of competition in a section of the iron and steel industry in which individualism has until recent years been an outstanding characteristic.

Galvanized Sheet Makers' Association

The galvanized sheet trade ranks fourth in the iron and steel industry, and is one of its strongest branches. The principal makers are members of an association which, while evidently not enforcing minimum selling prices, regulates trade by means of a pooling system. The syndicate was formed—or rather revived—in 1922, and has operated successfully. Its power is very considerable, for foreign competition is negligible, and there are no important "outsiders." But the trade is very largely dependent on overseas markets, a reaction in which, whether induced by rivalry or by a decline in demand, quickly leads to instability in domestic prices. Moreover, the creation of new enterprises is much less difficult than in the heavy branches of the iron and steel industry, for the size of the average undertaking is small and there are always available large supplies of cheap foreign raw material.

[1] Ryland's *Directory*.

Rail Makers' Association

The heavy rail trade, like certain other sections of the steel industry, has not in recent years been subject to the general tendency towards concentration of ownership. The number of makers—which are nearly all great composite undertakings—had, it is true, been reduced by 1906 to about nine,[1] but it has since increased to fifteen [2] owing to invasion by producers of semi-finished material. The number is, however, still small in relation to the size of the trade and, as there is little foreign rivalry, the maintenance of a common price policy is by no means difficult.

As early as 1883 the makers, then numbering about twenty,[3] had not only eliminated competition among themselves, but had become associated with German and Belgian firms for the purpose of regulating foreign trade. This international association broke down, but stability was reached in 1904 by the inclusion of French and American firms, those of Spain, Italy, and Russia being added later. The agreement was notable in that it gave each group the exclusive possession of its home market and a fixed percentage of the pooled export trade. It worked satisfactorily until the war, when it naturally became moribund, but it was revived in 1926, the pooled exports being then reported to have been apportioned as to 43·3 per cent to England, 39·7 per cent to Germany and France, and 17 per cent to Belgium and Luxemburg. Part of the English quota is understood to be for the account of the American makers, who consider it inexpedient to be publicly identified with the scheme.

Steel Bar and Strip Association

The Small Steel Bar Hoop and Strip Association was formed in 1923, the nucleus of it being a syndicate which broke down in the previous year. For purposes of home

[1] Levy, *Monopoly and Competition*, 1909, page 261.
[2] Ryland's *Directory*.
[3] Macrosty, *Trust Movement*, page 64.

trade, it divided the country into three districts—the Midlands and South Wales, London, and the South-East. There was no control placed on export sales, but minimum prices were enforced in the home trade. The association was at first successful, but as it represented a trade in which the number of firms was very large, and in which foreign competition was rapidly increasing, it soon collapsed and has since remained moribund.

Wrought Iron Association

Attempts to regulate prices have always been a feature of the wrought-iron trade. Long before the war, associations had begun to assert themselves in each district and, though showing little stability at first, gradually gained cohesion. By 1919 all the forge masters' associations in the Midlands, the North-East coast, and Scotland had become federated not only locally, but nationally. Price control broke down in 1922, but has since been revived in a loose form. Foreign competition, however, renders the pursuance of a monopolist policy quite impracticable, as may be judged from the fact that the imports of iron bars, rods, angles, shapes, and sections amounted in 1925 to 231,800 tons,[1] as compared with a home production of less than 263,000 tons.[2] There is also the competition of soft steel, while the forge masters themselves, though numbering only about thirty-seven,[3] appear to include some important non-associated producers.

National Light Castings Association

The manufacture of iron castings used in house-fitting is a branch of the iron industry in which small private undertakings predominate. Yet, though the total number of manufacturers exceeds 120, competition has for over

[1] Board of Trade Returns.

[2] Statistical Bulletin of National Federation of Iron and Steel Manufacturers.

[3] Ryland's *Directory*.

fourteen years been effectively regulated. The association which controls the trade was formed in 1911 with the declared object of "raising and maintaining prices."[1] To effect its purpose, it ascertained the past output of its members and to each gave a quota of production. Members who exceeded their allotment paid 7½ per cent of the value of their excess sales into a "pool," from which those who fell short of their quota drew compensation. Output was thereby effectively controlled, at least as regards home trade, which was alone subject to pool penalties. The association, at the request of the distributing trade, fixed minimum retail prices and middlemen's commissions, and forbade direct trading between its members and the consumer. To encourage loyalty, a deferred rebate was offered to those traders who observed the official scale of prices and dealt exclusively with members. Within a year the association had secured the support of nearly 95 per cent of the industry and had raised prices 25 per cent above the depressed level previously existing. It has since continued to function with remarkable success, though for a time, in 1922, there was some friction with the distributing trades.

The stability of the association is attributable, first, to the favourable trend of demand; secondly, to its pooling arrangement and its system of deferred rebates, which ensure the loyalty of the manufacturer and the retailer; and, thirdly, to the absence of oversea competition, which is handicapped by the nonconformance of foreign products to English specifications and also, in the case of certain goods, by the heavy cost of packing and transport. It would appear, however, that, despite the obstacle raised by the deferred rebate system, outsiders have increased their proportion of the trade or, at any rate, that the original members have had to make room for new-comers. The establishment of new enterprises is less difficult than in the heavy branches of the iron and steel industry, and

[1] Report on Light Castings, 1921 (Cmd. 1200), page 3.

the multiplicity of small firms does not make for permanent control. The policy of the association in regard to prices has been the subject of frequent Government investigations, all of which have tended to acquit the manufacturers of "profiteering." There is the safeguard that the association is pledged, under an agreement with the Ministry of Health, to adhere to the prices prevailing in January, 1924, "except in so far as some variation is rendered necessary by fluctuations in the cost of wages, fuel, and raw material."[1] The increase made in prices in February, 1925, formed the subject of an inquiry by a Standing Inter-Departmental Committee, which, on the evidence submitted by a firm of independent accountants, found that "no undue profit is being made by the members of the Association."[2] The value of this finding was, however, vitiated by the implicit assumption that the prices ruling early in 1924 were themselves fair and that the margin of profit had not increased since the first half of 1925—which was the only period for which profit figures appear to have been obtained.[3]

Cast-iron Pipe Association

Among manufacturers of cast-iron pipes other than light castings there is also in existence a strong but informal organization for the purpose of regulating prices. This association was created in 1908, its declared objects being "to secure fair remuneration for its members, to obtain an adequate share of the world export trade, and to protect home markets against foreign competition by combined action." With the object of promoting oversea trade, the association appointed agents in various parts of the world and introduced a system whereby losses on exports by individual members were averaged over the

[1] Report of Inter-Departmental Committee (Cmd. 2719), 1926, page 1.
[2] *Ibid.* [3] *Statist*, 21st August, 1926, page 290.

trade as a whole. For the home market, the practice was adopted of dictating which member's turn it was to take an order, and he was then instructed to quote the lowest price. In 1920 the association introduced a temporary arrangement, continuing from month to month, of fixing minimum prices for cast-iron pipes and of levying a contribution from members on all deliveries to meet expenses. According to a Government report issued in March, 1921, the association included in its membership practically all makers of cast-iron pipes cast vertically in sand. Since then the position does not appear to have altered materially, the maintenance of price control being greatly facilitated by the fact that in this section of the ironfoundry industry, as in the light castings trade, foreign competition is necessarily restricted.

Bedstead Makers' Federation

After many years of severe price-cutting, the manufacturers of bedsteads and bedstead fittings united in 1912 and formed a very elaborate association. As in the Light Castings' Association, each member on entrance was assigned a percentage of the total output; if this was exceeded, he paid into a pool a certain percentage of the excess, receiving compensation at the same rate on sales under the averaged proportion. The association fixed the minimum selling price for both the home and export trade, regulated the conditions and terms of delivery, and sometimes even acted as a central buying and selling organization for its members, a percentage contribution being levied upon monthly sales and invested in a separate company in which the members of the federation held shares in proportion to their contributions, so long as they did not forfeit their rights by defection. The association obtained the support of nearly 80 per cent of the industry; but, despite the virtual absence of foreign competition, it appears to have recently been dissolved.

Miscellaneous Associations

There are many miscellaneous sections of the iron and steel industry in which attempts have been made to suppress competition. In the wrought-iron tube trade, for instance, control was re-established in 1923 and has since continued. The regulation of prices is not very effective, however, for there are in all about sixty-five[1] separate producers, many of which remain outside the association. Foreign competition, moreover, is active, although it may be restricted by international agreement, as a result of the formation in July, 1926, of an alliance between all the principal continental manufacturers. In the bolt and nut trade, competition at least in the Midland section (which is by far the most important) is loosely controlled by associations, but the manufacturers number about 200,[2] and many of them follow an independent price policy. There is but little foreign rivalry, however, and probably nearly half the trade is controlled by a single company—Guest Keen & Nettlefolds. In the wire-netting trade, in which there are about twenty[3] firms, there is a fairly stable association, which not only controls the bulk of the home trade, but is (since June, 1926) closely allied with the German, Belgian, and French associations under an agreement which provides that the latter shall not export to England below certain minimum prices.[4] There are, however, many important producers outside this international alliance; and, although prices have been sharply advanced, it is very doubtful whether they can be indefinitely maintained. The wire-bar trade, which is one of the most important sections of the steel industry, is in the hands of about twenty-three[5] firms, the largest individual producers being Guest Keen & Nettlefolds, Dorman Long, and the United Steel Companies. Price-cutting by continental firms led to negotiations for

[1] Ryland's *Directory*. [2] *Ibid*. [3] *Ibid*.
[4] *Ironmonger*, 26th June, 1926, page 75; and 14th August, 1926, page 49. [5] Ryland's *Directory*.

an international agreement in 1924,[1] but no satisfactory solution appears to have been arrived at, for imports have continued to increase and at present form a very large proportion of the total home consumption.

(c) Conclusions

It may be concluded that, in spite of the rise of combines and associations, competition still predominates in the iron and steel industry. There is a system of domestic price regulation in many sections, but in none is it based on monopoly. That is prevented by a number of factors, the most important of which is foreign competition. Where this does not exist or is unimportant, as in the tin-plate and galvanized sheet trades, the producers are, as a rule, prevented by their lack of cohesion from taking advantage of their autonomy. Their disunity may arise from their multiplicity or from their individualism. Often, indeed, it may be traced to a form of "round-about" foreign rivalry, as, for instance, when an intensification of competition abroad reacts, suddenly, on export prices and thereby on home prices; or where the material produced enters into products in which there is foreign competition. Thus a monopoly of iron ore would be useless so long as there were free imports of pig iron; and even if it extended to semi-finished material, it would still be incomplete if there were foreign competition in finished products. The progression may, in fact, be reversed in the case of certain trades, for we have seen that the break-down of the tin-plate ring, for instance, was partly due to the importation of cheap raw material.

Writing nearly sixteen years ago on competition in the pig-iron trade, Professor Levy expressed the view that: "Price conditions are determined so much and so directly by market conditions abroad that English manufacturers would find a monopolist price-policy useless in bad times and unnecessary in good ones. Loose agreements as to

[1] *Ironmonger*, 10th May, 1924.

prices, and these only in exceptional economic conditions, are the most that can be expected. It is the same with a number of semi-finished iron and steel products. . . . Foreign competition would leave English cartels or trusts very little power to fix a price limit." This conclusion has to-day even a truer and wider application. Exports of pig iron, for instance, have fallen from 1,664,000 tons in 1906 to 468,000 tons in 1925, while imports have risen from 89,000 tons to 264,000 tons. Similarly, while the exports of sheet and tin-plate bars, ingots, blooms, and other semi-finished material have declined, the imports have risen from 486,000 tons in 1906 to 1,160,000 tons in 1925. Moreover, many finished products in which there was little or no foreign competition sixteen years ago, are now imported in very large quantities.

Yet it must be recognized that association has become much more popular among producers and that it is no longer true that agreements as to prices can only be expected in "exceptional" economic conditions. Rather do they succeed best when economic conditions are normal. Foreign competition owes its present unprecedented severity very largely to the artificial advantages of depreciated exchanges, coupled with unduly low labour costs, and when these disappear many associations now moribund will certainly be revived, with the object of keeping the rivalry of domestic producers within bounds. Such a development would, of course, be accelerated by the imposition of a protective tariff, for which there is at present a very strong agitation. But the difficulty is that a tariff on semi-finished material (in which foreign competition is most severe) would react adversely on just those "finishing" trades which owe their own immunity largely to the free importation of cheap supplies of such material. The sheet makers, for instance, who are the principal re-rollers of foreign steel, have hitherto held their own in international competition; but were a tariff to be imposed on their steel supplies, they would be placed in a much

inferior competitive position and in the power of the domestic steel makers.[1]

The formation of a national merger for the purpose of coping with the present great surplus of productive capacity has been advocated by certain leaders of the iron and steel industry. Lord Furness, speaking at the meeting of the South Durham group on 29th November, 1922, expressed the view that an amalgamation of firms "representing, say, at least 50 per cent" of the industry would enable prices to be "stabilized at reasonable figures." He based this opinion on the success which attended the formation of the United States Steel Corporation in 1900. At that time, he recalled "many new works had been built in America which gave a very much greater capacity without any immediate increase in the home demand, and this resulted in extremely low prices. The so-called gentlemen's agreements were cancelled and cut-throat competition was the result. But when about 50 per cent of the important steel makers were brought together under one control . . . prices were stabilized at reasonable figures." Lord Furness, in believing that a similar result would follow the formation of a trust in England, overlooked one very vital factor, however, namely, that price-cutting here is due not to domestic but to foreign rivalry, whereas in the protected American market in 1900 the contrary was the case. It is, besides, highly improbable that a combine representing merely 50 per cent of the industry would be able to control prices even if there were no foreign competition. The United States Steel Corporation, for instance, in 1900 produced over 66 per cent[2] of the crude steel output, but even that did not give it control, and despite all its immense resources it has since been fighting a losing battle with outsiders.[3] Doubtless in England many economies could be realized by

[1] *Vide* Evidence given before Committee of Industry and Trade, 11th December, 1924.
[2] Jones, *Trust Problem in the United States*, page 215.
[3] *Ibid.*

amalgamation, but the post-war experiments in this direction have been well-nigh disastrous and, as far as price stabilization is concerned, it offers no advantages over simple association, so long at any rate as foreign competition is the determining factor.

Failing a tariff, the producers may, of course, seek to solve their difficulties by international alliances. These, as we have seen, existed in a few trades in pre-war years, and, despite the disturbed situation on the continent, are now being revived and extended to other branches of the industry. This movement has been greatly facilitated by the re-establishment of associations in the principal continental countries. In Germany, the Raw Steel Union —a national association—was revived in 1925, and in 1926 co-ordination was carried to a higher stage by the amalgamation of many of the principal producers into a single unit—the United Steel Works. This latter development was significant in that it marked not merely a departure from the familiar cartel form of organization, but also a definite repudiation of the "vertical" type of amalgamation which had become so popular during the post-war boom. Unity among the home producers of raw iron and steel having been attained, the German unions opened negotiations in 1926 for an alliance with the French, Belgian, Luxemburg, and Saar producers, and after a few months' negotiations a complete understanding was reached. The full details of the agreement have not been disclosed, but the essential features of it are known to be the apportionment of production and the institution of a "compensation" fund or pool.[1] No provision is made for joint selling or for direct price regulation. As regards production, Germany is given a quota of 43·50 per cent; France, 31·19 per cent; Belgium, 11·56 per cent; Luxemburg, 8·50 per cent; and the Saar, 5·25 per cent. These percentages do not accurately represent the relative productive capacities of the various countries, for they are

[1] *Statist*, 9th October, 1926, page 556.

based on output during a period in which the French, and still more the Belgian, works were much less depressed than the German. Belgium scored by the haggling policy which she pursued throughout the negotiations, the basis on which her percentage of production has been fixed being increased from 265,000 tons to 295,000 tons. Potential sales for the four countries will be fixed yearly, and may vary between 27,500,000 tons and 30,600,000 tons; the actual sales will be ascertained quarterly. It is an important feature of the scheme that each country must pay into a common pool a sum of \$1 per ton of "quota" steel produced, and \$4 per ton of excess production; should the output of any country fall short of the quota, compensation will be paid to it at the rate of \$2 per ton. It must, of course, be observed that the quotas do not represent absolute quantities determined beforehand, but are rather percentages of a total which must fluctuate in accordance with demand. The various countries will, however, start with an arbitrary production estimate, which is taken to be about 27,500,000 tons in all, and the tendency —recent prices having been so unprofitable—will be to prevent production responding fully to an expansion in demand.

As regards selling and price-fixing arrangements, nothing definite appears to be agreed except that each country shall respect the other's home markets, while remaining free to compete elsewhere, subject to the general restriction regarding production. The agreement, which is for a period of five years, is an ambitious experiment designed to rescue the continental steel industry from one of the gravest crises of its history. Success will depend primarily on the district associations, whose stability may be endangered not only by disloyalty, but by the rivalry of non-members. As regards competition from other countries, little need be feared unless prices are unduly raised. It is expected that Czecho-Slovakia, Austria, Poland, and Polish Upper Silesia, in which control of production is already

highly concentrated, will be later included in the alliance by special agreement, and this would probably not involve any material disturbance of the present allocation of quotas. England, Sweden, Spain, and Italy need not at present be included, since they consume more steel than they produce; while America can be ignored because of her high price-level. But when competitive conditions become normal, it is very probable that England will have to be included, for she is capable of producing 49 per cent more iron and 37 per cent more steel than she is at present manufacturing, her total capacity being in each section about 12,500,000 tons. At any rate, as regards products other than raw steel—to which the present agreement solely relates—it is realized that if international control is to be established, England will have to be included. The great redundance of productive capacity throughout Europe is, of course, the chief spur behind the internationalization of the industry, but there is little danger that even if prices are effectively controlled they will be excessive in relation to the capital invested.

CHAPTER V

THE SOAP AND GLYCERINE COMBINE

PERHAPS in none of the great industries of England has competition been more effectively suppressed than in the soap trade. Certainly in none has the policy of amalgamation been so feverishly pursued or resulted in a combination of so many enterprises. The soap "trust," which, with one possible exception, is the largest industrial undertaking in England, affords, in fact, a convincing proof that a mere multiplicity of producers does not in itself constitute an insuperable obstacle to the creation of a monopoly.

The first attempt to consolidate the industry on a national basis was made in 1906, when, under the leadership of Lever Bros., a provisional agreement was arrived at for the fusion of ten of the principal manufacturers. The proposed merger aroused such public opposition, however, that the promoters shortly afterwards had to announce that it was "absolutely and finally dissolved." But what actually ensued was that Lever Bros., which, since its formation as a public company in 1894, had bought interests of about £1,000,000 in other firms, and had increased its properties and plant from a few hundred thousand pounds to approximately £1,700,000, proceeded unobtrusively to bring the industry under its own control, and by the end of 1911 had acquired all the undertakings in the abandoned merger, except Gossage's and Crosfield's, and had added four others. It had also established or acquired control of about thirty firms in France, Belgium, Germany, Switzerland, United States, Japan, Canada, Australia, and Africa; and had safeguarded its supplies of raw materials by the purchase of concessions in the Belgian Congo, West Africa, and islands in the Pacific. In 1912–1913 the company obtained control of about twenty other firms and entered

into a pooling agreement with Brunner Mond, which firm, by purchasing the Gossage and Crosfield firms in 1911, had constituted a formidable obstacle to its supremacy. During the war over thirty additional undertakings were taken over, and control was obtained of the soap interests of Brunner Mond, which firm thereupon withdrew from the trade. The period 1919–1920 saw the acquisition of many other firms, the most important being the Niger West African produce combine; since then the British Oil and Cake consolidation and numerous minor firms have been acquired at home, and heavy sums have been expended in financing overseas interests; with the result that the combine controls to-day the vast bulk of the domestic soap industry (including the by-product glycerine and candle sections), and occupies a position scarcely less prominent in several countries abroad.

It must not, however, be assumed that the company, during its present-century career, has been alone in its desire to suppress competition in the industry. On the contrary, the makers of household soap had become loosely associated as early as 1867, while the toilet soap makers came together in 1911.[1] Consultations were, however, informal and infrequent, and it was not until 1914, when the two associations were amalgamated, that price-fixing became systematic.[2] To-day, the need for association can hardly be said to exist, since the Lever combine owns nearly the whole industry. The system which prevailed is, however, of interest, and has been explained as follows[3] by a Government Committee of Inquiry (whose report was published in February, 1921): "The Association is governed by a council of seven, and has three committees (of seven)—for hard soap, toilet soap, and soft soap respectively. It has a membership of ninety soap makers, representing about 80 per cent of the total output of the 220 soap makers in this country. One of the declared objects of

[1] Report on the Soap Industry (Cmd. 1126), 1921, page 4.
[2] *Ibid.* [3] *Ibid.*, page 6.

the present Association is 'to maintain the minimum net prices and conditions at and upon which . . . soaps are offered and sold' in the home market. Minimum prices —both manufacturers' and retail—and conditions are fixed by the committees, and those prices and conditions are binding on all members, with the reservation that no resolution of the council or a committee is binding on members of the Association unless adopted unanimously by the members present when the resolution is passed. Any member can appeal for a non-unanimous resolution of a committee to be referred to the council, and in such case a unanimous resolution of the council is binding on members of the Association.

"Soaps which form an integral part of another product and proprietary brands or 'specialities' (stated to comprise about three-fifths of the total soap output) are not directly included in the price schedules of the Association. The prices of specialities and of non-proprietary brands are, however, almost invariably identical, and most manufacturers make both classes of soap; it follows that, although the prices of specialities are technically free from Association control, the leading manufacturers of specialities in effect control the Association prices or the Association in effect controls the price of specialities. In either case, the result is the same, and the prices fixed by the Association are the general and recognized prices of all soaps, proprietary or non-proprietary. Moreover, we have evidence that soap makers who are not members of the Association are consulted by the Association, and that the price changes of both generally coincide; non-members of the Association have told us that it is impracticable for their prices not to conform with those of the Association. Thus there is no competition in price and the prices fixed by the Association become the standard prices throughout the trade. . . .

"The rules of the present Association provide that of the seven members of the council and each committee, one

shall be a representative of Lever Bros., Ltd., and such of its associated companies as shall be members of the Association; one of Joseph Crosfield & Sons, Ltd., and of two of its associated companies; one of Joseph Watson & Sons, Ltd.; the remaining four shall be elected by the members of the Association. As the Crosfield group and Watson's are now controlled by Lever Bros., Ltd., it is thus in effect stipulated that the Lever combine shall be represented on the council and each committee by three members. The 1920 constitution shows that the Lever combine is represented on the council and the hard soap committee by five members, and on the other two committees by four members; whilst the president of the Association is a director of Lever Bros., Ltd., and both vice-presidents are directors of one of the companies associated with Lever Bros., Ltd. Four members form a quorum of the council and of each committee.

"Although ninety of the 220 soap makers in this country are members of the United Kingdom Soap Manufacturers' Association, the aggregate output of its members is about 80 per cent of the British total; and, although only thirty-seven of those ninety firms are in the Lever combine, the aggregate output of those Lever companies is from 70 per cent to 75 per cent of the British total and about 90 per cent of the aggregate output of the members of the Association. With one well-known exception (Co-operative Wholesale Society, Ltd.), there are few soap-making firms of any importance outside the Association or the Lever combine.

"While the power and influence of the Lever combine in the association is thus obviously strong, the requirement of unanimity prevents, we are told, its dominating the association, and safeguards the interests of the independent and small manufacturers. We find it difficult to believe, however, that an independent manufacturer could, for any considerable period, prevent the definite and considered wishes of the Lever combine from being put into effect. The requirement of unanimity seems more likely to be

effective in preventing a reduction in the price of soap than an increase."

In estimating the percentage of the trade controlled by the Lever combine, the committee excluded those firms (to the number of five) in which more than half the voting power was held by outsiders; and was evidently entirely unaware of the existence of five other undertakings which were owned wholly or in part. Accepting the figures as they then stood, however, it will be seen that 70 per cent to 75 per cent of the total British output of soap was attributed to the Lever group. Of its production, at least 90 per cent should have consisted of household soap; and, as the latter was stated to represent 80 per cent of the British total, it follows that the combine actually controlled, in 1920, about 82 per cent of the total output of household soap. Since then there have been further acquisitions which have probably raised the proportion controlled to about 90 per cent.

The question here arises as to the influence of the combine on prices. On this matter it is obviously very difficult to form a definite opinion. The natural assumption that a monopoly or quasi-monopoly price is always above the competitive price seems at first to be supported by the findings of the Committee of Inquiry of 1920.[1] That body conducted a lengthy investigation into the relation between the combine's costs and selling prices, and expressed the view that the prices charged were excessive. This conclusion was based on the fact that, whereas in December, 1920, the price of soap was maintained at 11d. a lb., the cost was 2½d. a lb. less than when soap was first raised to that price in 1919. It was concluded that the price should in December, 1920, have been not more than 8½d. or 9d. instead of 11d.

The figures given justified this conclusion. But if they did, they would at the same time seem to suggest that the prices charged since 1920 have not been unduly

[1] Cmd. 1126.

high. It has first to be observed that the retail price was reduced to 10d. in January, 1921; to 9d. in February, 1921; to 8½d. in April, 1921; to 8d. in November, 1921; to 7d. in August, 1922; to 6½d. in December, 1922; and to 6d. in April, 1926.[1] Now in April, 1926, the market price of the raw materials chosen by the committee was about £39 a ton, or £10 14s. less than in December, 1920, when it was estimated that the price of soap should have been "not more than 8½d. or 9d." instead of 11d. Allowing, in accordance with the committee's method of calculation, first, for the fact that two-thirds of a ton of raw material are necessary for the making of 1 ton of soap; and, secondly, for the rise from £92 to £95 in the value of glycerine recovered, the net reduction in the cost of raw material between December, 1920, and April, 1926, was equivalent to about £7 3s. a ton of soap. Assuming that other costs fell during the same period by as much as £9 a ton of soap (or approximately 40 per cent), the total reduction in cost would be £16 3s., or barely 1¾d. a lb. of soap. It would follow that the retail price of 6d. in April, 1926, was actually 1d. a lb. below what the committee itself would have considered reasonable. It would appear, therefore, that, since 1920, the combine's price policy has been moderate or, else, that the committee erred in its original calculation of a fair price.

The question may be examined from another angle, namely, the profits earned by the principal soap-makers controlled by the combine. The Committee of Inquiry[2] gave the returns for the war period, as shown in the Table given at the head of page 65.

The figures show that between 1913 and 1919 Lever Bros. increased the rate of profit by over 100 per cent and the combined undertakings by nearly 50 per cent. They did so, moreover, on sales which, owing to increased costs and prices, and not to increased tonnage, were more than two-and-a-half times as large. The profits were, however,

[1] Official price changes. [2] Cmd. 1126, page 8.

	Lever Bros.			Lever Bros. and Thirteen Allied Companies		
Year	Home Sales	Profit Thereon	Ratio	Home Sales	Profit Thereon	Ratio
	£	£	%	£	£	%
1913	1,770,580	147,125	8·31	3,384,725	370,018	10·93
1914	1,891,608	224,573	11·87	3,591,190	453,365	12·62
1915	1,914,777	205,819	10·75	3,611,064	575,371	15·93
1916	2,253,323	83,381	3·70	4,310,743	384,163	8·91
1917	3,372,043	252,110	7·48	5,686,831	497,021	8·74
1918	3,670,530	709,167	19·32	7,194,911	1,184,399	16·46
1919	5,083,405	848,275	16·69	8,912,451	1,446,797	16·23

subject to Excess Profits Duty, income tax, and various head office charges, and in any case referred to a period in which the earnings of all industrial undertakings were very excessive. The post-war figures, given on page 66, relating to all those constituents of the combine which publish accounts are of much greater value, if only because it was not until after 1918 that the combine assumed a quasi-monopolist position.

It will be seen that the profits which the subsidiaries have earned since they passed under the control of Lever Bros. in 1919–1920 have not been such as to suggest excessive selling prices. In fact, an expansion in sales has been accompanied by a decline in profits far below the level of the war period. It may be suggested that the decline is to some extent evidence of monopolist stagnation or, at any rate, is an indication that the combine has not secured the theoretical economies of monopoly, or even the normal economies of a large-scale competitive organization. This latter view was expressed as follows, in 1920, by the Government Committee of Inquiry:[1] "We think we are justified in recording our impression, gathered from the testimony of competent witnesses, that, although the acquired companies have the benefit of the advice of Lever Bros'. experts and of their laboratory, they nevertheless,

[1] Cmd. 1126, page 13.

	Year	Resources Employed	Earned Thereon	Ratio
		£	£	%
Lever Bros.	1910	6,641,000	522,000	7·9
	1911	8,077,000	598,000	7·4
	1912	9,094,000	648,000	7·1
	1913	12,233,000	847,000	6·9
	1919	26,362,000	2,439,000	9·3
	1920	47,444,000	3,270,000*	6·9*
	1921	51,675,000	4,206,000*	8·1*
	1922	57,227,000	5,015,000*	8·8*
	1923	60,206,000	5,552,000	9·2
	1924	64,944,000	5,898,000	9·1
	1925	64,999,000	5,980,000	9·2
Crosfield .	1919–20	4,506,000	308,000	6·8
	1920–21	4,509,000	278,000	6·2
	1921–22	4,517,000	328,000	7·3
	1922–23	4,533,000	328,000	7·2
	1923–24	4,541,000	380,000	8·4
	1924–25	4,543,000	328,000	7·2
Gossage .	1919–20	1,777,000	149,000	8·4
	1920–21	1,780,000	146,000	8·2
	1921–22	1,782,000	172,000	9·7
	1922–23	1,786,000	172,000	9·6
	1923–24	1,789,000	171,000	9·6
	1924–25	1,792,000	172,000	9·6
Pears . .	1918–19	1,051,000	104,000	9·9
	1919–20	1,055,000	104,000	9·9
	1920–21	1,058,000	105,000	9·9
	1921–22	1,063,000	105,000	9·9
	1922–23	1,068,000	110,000	10·3
	1923–24	1,077,000	97,000	9·0
	1924–25	1,074,000	94,000	8·8
	1925–26	1,069,000	73,000	6·8
Knight .	1918–19	688,000	147,000	21·4
	1919–20	696,000	134,000	19·3
	1920–21	714,000	164,000	23·0
	1921–22	733,000	151,000	20·6
	1922–23	738,000	147,000	19·9
	1923–24	739,000	144,000	19·5
	1924–25	738,000	157,000	21·3

* After crediting taxation repayments, but before providing for losses sustained by certain subsidiaries.

generally speaking, have continued their individual organizations and have effected little or no economy in any of the items which go to make up the cost of the manufacture of soap. The same works are generally continued under the same management, the existing titles and goodwill are maintained, necessitating separate travellers, advertising, and distribution. We are aware that particular economies in manufacture and distribution have been made, but generally we have been unable to satisfy ourselves that the saving resulting from the combine has been sufficient to affect materially the cost of production. . . ."

This absence of centralization is not denied by the combine. Indeed, the late Viscount Leverhulme, at a meeting of Lever Bros. on 10th April, 1924,[1] went so far as to say that not only had each of the associated companies its own board of directors, but "all were in the closest competition with one another." "That," he added, "was the only way the string of the bow was kept tight." The speaker apparently meant not that one branch undercuts or competes in the ordinary sense with the next, but that rivalry is encouraged in a form which, though it involves waste, is considered to be more beneficial in the long run than a policy of complete centralization. There would be obvious practical difficulties in merging over 200[2] widely scattered subsidiaries into one unit, and it is well recognized that the business of subsidiaries, particularly those which are engaged in local trade, would suffer if the outward appearance of independence were not maintained. The heads of the combine are directors of the individual companies, and they see to it that co-operation is not limited simply to the fixing of prices. The subsidiaries, for the most part, are not directly owned and supervised by the parent company, but by a sort of holding corporation known as Associated Enterprises. The latter is an obscure, but evidently very alert, organization, which keeps in

[1] *Financial Times*, 11th April, 1924.
[2] Chairman's statement (*Financial Times*, 14th March, 1923).

constant touch with the various branches, and decides all broad questions of policy and finance.

The combine may not have effected large economies in production, but the fact that it has successfully emerged from the cataclysm of 1920–1921, despite its heavy West African and continental commitments and its stupendous boom-time development, suggests a high standard of administrative ability.

It is true that in matters of finance, serious mistakes have been made. Many properties were bought for their speculative value, or for the sole purpose of rounding off a monopoly, at a cost which has proved grossly excessive. For example, shares were acquired in the Niger Co., in 1920, at a cost of £8,500,000 (or a premium of 550 per cent), which have contributed nothing to revenue and were written off in 1921.[1] The shares simultaneously acquired in John Knight (Ltd.) have yielded only about 2½ per cent annually; while less than 5 per cent a year has been obtained on the investment of £4,000,000 in Gossages and Crosfields. The capital has also been diluted by the distribution of a preference share bonus of £3,944,000 (in 1920), and particularly by issues at par to the ordinary shareholders. The latter have, in fact, been allotted preference and preferred shares which have yielded them a "profit" of probably more than £6,000,000, but have brought to the company a revenue probably less than a third of the interest charge involved by the allotment of such shares at less than market value. In effect, of course, the ordinary shareholders simply capitalized part of their own future profits; and it is only fair to add that, in 1921, they returned a large part of the premium received to enable the company to write off certain losses.[2] Other sums, representing the amounts required to write off the Niger and all other West African holdings, and to cover

[1] Official Statement (*Financial Times*), 5th April, 1921.
[2] Official Statement (*Financial Times*), 14th March, 1923, and Report for 1922.

the bonus share distribution of £3,944,000 in 1920, were, on the other hand, provided in part by writing up certain investments to their estimated approximate true value.[1] On the whole, however, the financial structure of the combine, though obscure and exceedingly complex, appears to be inherently sound.

It has been shown that the combine has so far pursued a moderate price policy. What are the safeguards in the event of its ceasing to do so? It must be admitted that they are not very apparent. The State does not, of course, exercise any supervision, and such "public opinion" as may be said to exist is largely inarticulate. And as the combine deals in a commodity which is a conventional necessity and which is relatively very cheap, it could, if it wished, increase prices considerably without affecting consumption. How important is this consideration may be judged from the fact that a "monopoly" increase of a mere farthing a lb. in the price of soap would mean an additional profit of over £930,000 on the total annual production of 400,000 tons.

Yet it can hardly be said that the consumer is quite defenceless. It might, for a while, be possible to extract monopoly profits, but not indefinitely. There are, after all, several independent firms, which, though small, are probably capable of producing almost as cheaply as the combine in its present form. They might, perhaps, be easily absorbed if they caused trouble, but it would be difficult to suppress the rise of new enterprises, for the initial capital required is small and the process of manufacture is simple. It is true that the combine, together with the African and Eastern Trade Corporation, and a few other groups, control a large part of the supplies of raw material, but, even if taken together, they are very far from monopolizing those supplies. The tropical produce market is, in fact, one of the most highly competitive in the world. The combine may not, perhaps, have so much

[1] Official Statement (*Financial Times*), 25th April, 1921.

to fear from the rise of soap firms as such, as from the development of soap manufacture by undertakings engaged in the oilcake, margarine, and other kindred trades. There has, in fact, been recently a movement in this direction—induced partly, perhaps, by the counter-incursions of the combine.

Another important factor is foreign competition. This is slight in household, laundry, and rough soap, the imports being barely one-seventh of the exports and less than 3 per cent of the total national consumption.[1] In toilet soap (which, however, represents only $3\frac{1}{2}$ per cent of the total production), foreign competition is much greater, the imports being, in fact, as large as the exports, and constituting about one-fourth of the national consumption.[2] Clearly in the latter trade, in which, incidentally, control of home manufacture is strong, the combine has to take serious account of foreign competition. And even in the case of other soap, and its by-product, glycerine, imports, which are at present low because the combine's prices are low, would rise quickly if prices were increased. It must, of course, be recognized that the combine occupies a very strong position in many of the principal countries abroad. Its foreign interests, in fact, far exceed its home interests, and it has claimed that in an emergency it would supply the whole domestic market from its oversea factories.[3] There is, consequently, a danger of an international alliance.

To sum up, it may be said that the combine has, by a series of amalgamations, unequalled in number and magnitude, acquired, at a heavy cost, control of the vast bulk of the soap and glycerine industry in England. It has not realized, or attempted to realize, the full physical economies of monopoly, being content, broadly speaking, to allow each of the constituent firms to continue its individual organization, subject only to a central control of prices

[1] Board of Trade Returns. (The figures of production and consumption have been obtained from an official source.)
[2] *Ibid.*
[3] Official Statement (*Financial Times*), 12th April, 1924.

and finance. This policy may, perhaps, be the more economical in the long run ; but in so far as that is true, it destroys the only argument that can be advanced in favour of monopoly. Prices, having regard, on the one hand, to the absence of economy and, on the other, to the inflated cost of the company's acquisitions, have doubtless been higher than they would be under free competition ; yet they do not appear to have yielded an unreasonably high return on the capital invested. Probably the combine, by reason of the nature of the demand which it supplies, can charge excessive prices with impunity, but such excess is limited by external competition and by the comparative ease with which new enterprises can be established.

CHAPTER VI

THE SALT ASSOCIATIONS

In no other mining industry in England is competition so well regulated as in the salt trade. In none, however, did the manufacturers experience so much difficulty in achieving their aim. The history of the industry up to 1915, when success was eventually realized, is, indeed, one long record of intense rivalry, relieved intermittently by loose alliances.

Conditions seemed at first to favour monopoly, for at one time production was practically confined to a small area in Cheshire, and foreign competition had not become noticeable. The prospect of exploiting these advantages, combined with the general desire to restrict excessive rivalry, led, in 1887, to the amalgamation of sixty-four firms controlling 90 per cent (2,000,000 tons) of the output.[1] The new company—the Salt Union—began by greatly increasing prices, and in the first year of its existence paid 10 per cent on shares which represented little more than "water."[2] Its quasi-monopoly proved short-lived, however, for within twelve years it had lost nearly half its trade and most of its capital,[3] its collapse being primarily due to the development of new domestic sources of supply and improved methods of utilization, and the rapid growth of the industry abroad.[4] The company entered into offensive and defensive alliances with the alkali makers, and vainly "spent fabulous sums in order to keep others out of the trade."[5] An agreement with its principal competitors in 1899 failed to restore its prosperity, and in 1902 its share

[1] Prospectus, 8th October, 1888.
[2] Official Statement, 17th June, 1912 (*Manchester Guardian*).
[3] *Statist*, 7th March, 1908.
[4] Official Statements, 18th June, 1912 (*Manchester Guardian*).
[5] *Ibid.*

capital had to be written down from £3,000,000 to £1,400,000. A co-operative selling syndicate, formed in 1906, under the title of the North-Western Salt Co., was moderately successful until 1911, when the agreement between its members expired and cut-throat competition again arose. Early in 1912 a new organization, supported by 84 per cent of the trade, was established, but it broke down within a year because outsiders continued to erect new pans and refused to become members unless they were granted an increased proportion of the trade.[1]

The war, however, radically changed the traditional attitude of the salt-makers towards one another, for in November, 1915, there was formed an association which has since operated with complete success.[2] This body—the Salt Manufacturers' Association—has the following membership—

Salt Union
United Alkali Company
Middlewich Salt Co. (Cerebos branch)
Verdin Cooke & Co.
Stubbs & Co.
Alfred J. Thompson
Henry Seddon & Sons
John Gardner & Co.
G. Hamlett & Sons
Ingram Thompson & Sons
Stafford Salt & Alkali
Murgatroyd Salt Works
Chance & Hunt (Brunner Mond branch)

Allied to this Cheshire consortium is the North-Eastern Salt Co., which controls the industry in Northumberland, Durham, and Yorkshire, and has the undermentioned shareholders, three of which are also members of the association—

Salt Union
United Alkali Co.
Cerebos
Tees Salt Co.
Cleveland Salt Co.
Pease & Partners.

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[1] Official statement, 15th March, 1913 (*Financial Times*).
[2] The facts relating to this association are drawn from the report on the Salt Trade (Cmd. 832), 1920.

This syndicate—which is a properly constituted limited liability company—fixes the output of each of its shareholders' works in Northumberland, Durham, and Yorkshire; buys that output at a fixed rate and sells it to the best advantage, its profits being then divided among its members in agreed proportions. Loyalty is enforced by a penalty of 20s. per ton on all salt manufactured or dealt in contrary to the agreement. To prevent collision with the company's chief shareholder—the Salt Union—the bulk of whose output is produced outside the above-mentioned counties, and therefore beyond the syndicate's control—there is a working agreement whereby the sales of the company and the Union are proportionately fixed for London and several other areas; while for certain districts and foreign countries, uniform prices are quoted, or the market is left to one or other of the parties. The syndicate was formed long before the war, but as it regulates only a small proportion of the total trade and is controlled by the three chief members of the association, it is of only subsidiary importance.

The association regulates directly or indirectly about 90 per cent of the production of salt marketed, but a very much smaller proportion of the total output, about 60 per cent of the latter being sent in the form of brine to chemical works for conversion into soda.[1] Since soda manufacture, however, is largely in the hands of Brunner Mond and the United Alkali Co., and since the latter control their own brine supplies and are members of the association, it follows that the whole industry is under fairly effective control.

The position of the association was investigated in 1920 by a Government Committee, whose report,[2] though very faulty, contained some valuable information. As an illustration of the changes effected by the association, the

[1] So the writer has been officially informed by the Mines Department.

[2] Cmd. 832.

committee gave the following figures relating to the home trading results of the Salt Union—

Year	Cost per ton Salt, Cheshire	Realized price per ton	Profit per ton	Loss per ton
	s. d.	s. d.	s. d.	s. d.
1913	14 0·1	12 8·4	—	1 3·7
1914	14 2·8	12 4·9	—	1 9·9
1915	16 5·3	12 1·8	—	4 3·5
1916	23 9·7	27 5·6	3 7·9	—
1917	32 6·4	33 1·7	7·3	—
1918	42 0·1	45 2·1	3 2·0	—
1919	41 9·7	48 6·1	6 8·4	—

Though the committee did not define what is meant by cost, or include the results obtained from brine sales or from the branches outside Cheshire, it is clear that the control imposed by the association, in conjunction with very abnormal war conditions, did bring about a marked improvement in the industry. That the association is still maintaining prices at profit levels may be judged from the following figures, abstracted from the accounts of the Union and of Cerebos (the only salt firms which publish accounts)—

Year	Salt Union		Cerebos	
	Earned on	Resources employed	Earned on	Resources employed
	£	%	£	%
1909	100,000	3·8	20,000	8·1
1910	110,000	4·1	22,000	9·0
1911	126,000	4·6	20,000	8·2
1912	80,000	2·9	15,000	6·0
1913	83,000	3·0	16,000	5·4
1919	303,000	10·0	50,000*	16·0
1920	317,000	10·3	43,000*	13·2
1921	162,000	5·2	45,000*	12·6
1922	208,000	6·7	51,000	13·8
1923	280,000	9·6	66,000	16·8
1924	306,000	10·1	75,000	17·6
1925	274,000	8·9	88,000	19·3

* Subject to Excess Profits Duty.

In connection with the above figures, it should be mentioned that the assets of the Salt Union were written down by about 35 per cent in 1902 in an attempt to establish a proper relation between them and the earning capacity. That the adjustment at the time was not sufficiently drastic is evident from the smallness of the percentage earned on the reduced capital between then and 1915. To-day, however, it can hardly be said that the assets are over-valued, for since 1914 heavy allowances have been made for depreciation and, at the same time, there has been a marked inherent appreciation[1] due largely to the violent change in the general level of values. This change has itself been one important cause of the increase in profits since pre-war years. Another has been improved efficiency, particularly in the electricity supply department, which has now become an important industrial undertaking in itself. But the fact that earnings both in the case of the company and of the Cerebos concern are, to-day, about three times the depressed pre-war average, despite the fact that sales in proportion to the capital employed are probably smaller, must be attributed primarily to the existence of the association. It may be argued in justification that the pre-war average was unconscionably low. That, however, is another matter. The association has not, of course, been able to maintain prices at the high level ruling in 1920. But the decline has probably reflected little more than the reduction in costs, and it is significant that the net value per ton is still more than twice the pre-war average.[2]

Competition has clearly been very largely suppressed, but the control is in certain respects faulty. There is, first, the defect that the association is not a consolidation, but a loose alliance of firms whose tradition until 1915 was one of extreme mutual distrust. It has further to be observed

[1] Official statement, annual meeting, 20th March, 1920 (*Statist*, page 572).
[2] Report of the Secretary for Mines.

that productive capacity continues to be greatly in excess of demand,[1] which is obviously a dangerous situation. Finally—and this is perhaps the most important consideration—there is a good deal of actual and potential competition. The association may, in conjunction with the alkali interests, control 90 per cent of the output. But it does not control anything like that proportion of the brine lands and, even if it did, would have to recognize that the remainder would be quite capable of yielding far more than 10 per cent of the actual output. Not only could existing competitors largely increase their production under the stimulus of excessive prices, but new undertakings could be easily established, for, as a hostile Government committee had to admit in 1920: "There is nothing to prevent new enterprise in the industry."[2] The initial capital required is small and the process of manufacture simple, even primitive, the old Roman open-pan system being still generally in use.[3] Of course, the members of the association could buy and lock up brine lands so as to impede the rise of new undertakings. The Salt Union—the combine that had once held a quasi-monopoly—did, in fact, practise that policy on a very extensive scale. But it had eventually to confess that it was merely a "wild-goose chase."[4] It also found, after some years, that the agreement which it made with the Brunner Mond alkali combine, whereby each party undertook not to sell its surplus brine lands to the other's rivals, was not worth maintaining.[5] High prices have called several new undertakings into being, and the efforts which have been made to bring them into the association have so far failed.[6] This incursion into an already overcrowded industry has not yet resulted in a large production on the part of the

[1] Official statement of Salt Union, 29th March, 1924 (*Statist*).
[2] Report on the Salt Trade (Cmd. 832), 1920, page 11.
[3] *Ibid.*, page 3.
[4] Official statement, 18th June, 1912 (*Manchester Guardian*).
[5] Official statement, 3rd April, 1915 (*Statist*).
[6] Official statement of Salt Union, 28th March, 1925 (*Statist*).

new-comers, but the development is viewed with uneasiness, and attempts have been made to scotch it by reducing prices.[1] Foreign competition, too, is a factor that cannot be overlooked. The protective effect of freights, it is true, is considerable, the price of salt being very low in proportion to bulk. But imports have increased steadily in recent years and, though still relatively small, are at present more than twice the pre-war average, whereas exports are only about half as much.[2] Of course, it may be found possible to remove foreign rivalry by an international alliance. An agreement did, in fact, exist until recently between the Salt Union and foreign manufacturers in regard to shipments of salt to certain of the great markets of the Far East.[3] But the understanding broke down in 1923, and it seems unlikely that if it be renewed it will be extended to the home markets of the respective parties.

It may be affirmed, then, that though the ruinous competition of pre-war years has been replaced by a well-organized system of price-control, through an association representing about 90 per cent of the total output, yet the pursuance of a monopolist or unduly selfish policy is impracticable, as has been demonstrated not only by recent developments, but by the break-up of many early associations, and by the rapid destruction of the quasi-monopoly once held by the Salt Union.

[1] *Ibid.*
[2] Annual Summary of Trade.
[3] Official statements of Salt Union, 29th March, 1925; and 27th March, 1926 (*Statist*).

CHAPTER VII

THE CHEMICAL INDUSTRIES

(*a*) The Alkali Trade

The primary chemicals are alkalis, acids, and tar distillates, their most important bases being respectively common salt, pyrites, and coal. In each industry the regulation of prices is a noticeable feature.

The alkali trade is largely controlled by two companies —Brunner Mond and United Alkali—the one being largely a war-time combination, the other a consolidation dating back to 1890. The circumstances which first gave rise to combination in the industry were unusual. Over-production, it is true, was one cause, for, after the middle 'seventies, the industry as then organized under the Leblanc process of manufacture tended to become overcrowded.[1] But the primary impetus to combination was the introduction, in 1881, of the ammonia-soda process of manufacture.[2] This process (introduced by the founders of Brunner Mond) made it impossible for the Leblanc firms to produce soda at a profit, but it did not affect their by-product chlorine trade, for the reason that the new process was itself adapted for the production of the alkali only. Accordingly it was felt that the only way in which to neutralize losses on the soda trade was to establish a monopoly in the by-product chlorine trade. With this object, the Bleaching Powder Association was formed, and regulated production and prices until 1890, when the constituent members, feeling the need for a more stable organization, decided to become amalgamated, the number of firms involved being altogether about fifty-one.[3]

[1] Centenary of the Alkali Industry, 1924 (issued by United Alkali Co.), page 43.
[2] *Ibid.* [3] *Ibid.*, page 47.

The monopoly thus established was soon to be destroyed, however, for in a few years new processes were discovered (the most successful being the Castner-Kellner) which were capable of yielding simultaneously both the soda and chloride products. The combine had thereupon to begin the scrapping of the Leblanc process and to fight stubbornly for life, until the change-over to the new processes was completed about 1916.

In the meantime, Brunner Mond continued to exploit the ammonia-soda process, capturing much of the alkali trade of the combine; but the gradual reorganization of the latter, together with the advent of the Castner-Kellner, Electro-Bleach, and other firms prevented the creation of a monopoly in any section of the industry. In course of time, the domestic and foreign producers came to "understandings," but these were generally of a very loose character. Such was the position at the outbreak of war in 1914. Soon the vast bulk of the trade was to pass into the hands of Brunner Mond, for that undertaking which, until 1915, had relied wholly on internal development, launched out on a bold policy of absorption, acquiring by 1921, for the equivalent of about £7,800,000,[1] practically all the capital of (1) the Castner-Kellner Alkali Co., specializing in caustic soda and compounds of soda and chlorine; (2) Electro-Bleach and By-Products, specializing in bleaching powder (chloride of lime), soda compounds, and salt; (3) Chance & Hunt, specializing in ammonia compounds, the acids, caustic soda, sodium-sulphide, and salt.

Thus, to-day, the control of the industry is held very largely by Brunner Mond and the United Alkali Co. Brunner Mond controls by far the greater part of the output of soda ash, bicarbonate of soda, and soda crystals ("washing" soda), and is also extensively engaged in the manufacture of chloride of calcium, synthetic sulphate of ammonia, and ammonium carbonate. The United Alkali Co., which originally controlled over 60 per cent of the

[1] *Statist*, 23rd May, 1925.

output of soda products, has lost its predominance in that trade, but it is still probably the largest manufacturer of the chief chlorine products, and is a very extensive producer of sulphuric acid, hydrochloric acid, and nitric acid. The two companies have for many years avoided conflict by working agreements and, since October, 1926, have been merged, with others, in a new combine—Imperial Chemicals, Ltd.[1] Brunner Mond, moreover, has the advantage of an agreement[2] made in October, 1919, on the occasion of the sale of its soap interests to Lever Bros., whereby it holds in perpetuity the exclusive right to supply soda ash to that undertaking and all its associated companies, excluding (1) those in which more than 50 per cent of the divisible profits belong to outsiders; and (2) certain associated companies abroad (in whose cases, however, mutual preference is given). Brunner Mond, in return, undertook not to be concerned or interested in any way in the manufacture or sale of soap in any part of the world (except to the extent of its existing interests in certain European and American concerns which undertakings it was, moreover, to try and induce to withdraw from the soap trade). The importance of this agreement becomes clear when it is realized (1) that the Lever combine controls the vast bulk of the soap industry in England, and has still greater soap interests abroad; (2) that in 1919 (when the Lever combine was much smaller than at present) not much less than half Brunner Mond's home deliveries of soda ash were made to soap manufacturers; and (3) that Brunner Mond's chief product is soda ash (the primary alkali).

Competition between the home manufacturers is clearly very restricted. What, then, is the position as regards foreign rivalry? The official returns do not suggest that this is very serious, the average imports of soda

[1] *Vide* page 99.
[2] The facts relating to this agreement drawn from the Report on the Soap Industry (Cmd. 1126, 1921).

compounds in 1925 having been barely 284,000 tons, and of bleaching materials 104,000 tons, compared with exports of 9,258,000 tons and 355,000 tons respectively. These figures, however, go merely to show the degree of actual competition and not the degree of potential rivalry. In other words, they indicate not that the combines have a world monopoly, but that they have reduced prices in conformity with movements abroad. If they had not done so, obviously the comparison would be much less favourable. This fact should always be very clearly borne in mind in connection with the subject of external competition. Of course, in the particular case of the alkali industry, it must be allowed that international agreements as to prices and the division of markets may be in operation. The principal manufacturers abroad are to a large extent syndicated (partly because of the common ownership of patents), and Brunner Mond itself claims "close alliance" with the great Solway group of Belgium and the United States.[1] Whatever collusion may exist, however, is clearly not such as to permit rigid control of prices, either in the domestic or export trades.

In this connection it has to be noted that, since 1920, when costs were exceedingly high, prices have fallen steadily. That these reductions have been in proportion to the fall in costs would appear to be suggested by the published accounts of the combines. The figures are given on page 83, the profits being shown subject to depreciation, so as to maintain the pre-war practice of the companies.

The figures, which are necessarily only approximate, show that in the case of Brunner Mond, the percentage earned on the capital employed, though still rather high, is much less than under the competitive conditions of pre-war years. The probable explanation, however, is not that prices are more moderate, but that the resources employed are less conservatively valued, very large extensions having been made at a relatively excessive cost.

[1] Prospectus, 9th May, 1921, page 2.

Still, it would appear that, in the aggregate, the assets remain considerably undervalued, though less so, perhaps, than might be suggested by the fact that the company realized a capital profit of £2,100,000 on the sale of a relatively small part of its undertaking in 1919. In the case of the United Alkali Co., the increase in profits as compared with pre-war years is due partly to an improvement in efficiency, but primarily to the fact that there have been no heavy extensions to capital resources at an inflated cost. It is doubtless true that the company's assets were over-valued in pre-war years, but £2,470,000 was written off in 1913, and whatever deficiency remained has since been made good. It may be affirmed that, in proportion to the resources employed, and having regard to the degree of efficiency which exists, the profits earned by the two combines have not been excessive. There would doubtless be little material effect on demand if prices were manipulated, for soda products supply vital needs and, as a rule, form only a small proportion of the

Year to 31 Mar.	Brunner Mond			United Alkali		
	Resources Employed	Earned Thereon	Ratio	Resources Employed*	Earned Thereon	Ratio
	£	£	%	£	£	%
1910	3,726,000	738,000	19·8	6,545,000†	462,000	7·1
1911	3,726,000	760,000	20·4	6,566,000†	453,000	6·9
1912	3,715,000	766,000	20·6	6,581,000†	367,000	5·6
1913	4,441,000	782,000	17·6	6,581,000	324,000	4·9
1920	10,178,000	1,279,000	12·6	6,796,000	259,000	3·8
1921	12,324,000‡	1,103,000	9·0	6,800,000 (1921–1922)	768,000 (1921–1922)	11·3 (1921–1922)
1922	13,919,000‡	922,000	6·6			
1923	16,503,000‡	1,850,000	11·2	6,880,000	453,000	6·6
1924	16,521,000‡	1,753,000	10·6	7,224,000	602,000	8·3
1925	16,686,000‡	1,770,000	10·6	7,350,000	535,000	7·3
1926	16,826,000‡	1,834,000	10·9	—	—	—

* Year to 31st December.
† On basis of 1913 valuation.
‡ Including capital profit of £2,100,000 realized on sale of soap interests.

consumer's total costs. Nor is it likely that domestic rivalry would become serious, for special difficulties (not the least of which is connected with patent rights) impede the rise of new enterprises. There are, of course, abundant supplies of salt (which is the basic raw material), but in this respect the combines enjoy special advantages. Foreign competition, however, provides one important safeguard, which may be relied upon so long as it is not circumscribed by international agreements.

(*b*) The Sulphuric Acid Association

The sulphuric acid makers, unlike the alkali producers, are not united by amalgamation. Such would, indeed, be impossible for the reason that for most of them the production of acid is merely one—and often a subsidiary—section of a varied business. Yet though not merged by common ownership, they are united by means of an association. This body, though handicapped by a redundancy of productive capacity, appears to have operated fairly successfully for many years past. So well, in fact, that the chief consuming industry has repeatedly accused it of "profiteering." In 1922, when acid prices were over 120 per cent above the pre-war level, the sulphate of ammonia producers, acting through their own federation, warned the association that they intended to make "the most strenuous efforts" to bring down the cost of supplies.[1] Two years later, prices were still considered to be "much too high,"[2] but the hope was still retained that "the law of supply and demand will eventually give relief." The expectation appears, indeed, to have been largely realized, not because of direct foreign competition —for that is negligible—but because of rivalry among the home producers themselves, and also because the demand for sulphuric acid is primarily a derived demand, depending

[1] *Vide* official statement of British Sulphate of Ammonia Federation, *Times*, 21st November, 1922.
[2] *Ibid.*, *Times*, 24th November, 1924.

on the price at which sulphate of ammonia and other finished products can be sold in competition with rival commodities.

(c) THE SULPHATE OF AMMONIA FEDERATION THE NITRATE PRODUCERS' ASSOCIATION

The position in the sulphate of ammonia industry itself is somewhat similar to that which exists in the sulphuric acid trade. There, also, amalgamation is practically non-existent for the reason that the fertilizer is simply a by-product of shale works, coke ovens, and gas works. But over 90 per cent[1] of the industry is controlled by the British Sulphate of Ammonia Federation, an organization which in some respects resembles a cartel.[2]

It is a private company "limited by guarantee and having no share capital." Membership is open to all manufacturers within the United Kingdom and the Empire who produce a specified quantity of sulphate of ammonia. General management and control is vested in a "Council" and an "Executive Committee," the former being given absolute power to decide the membership of the company. For convenience of management, the country is divided up into the following districts, each of which has the right to have one representative on the council for each complete minimum unit of sulphate of ammonia produced by it—

1. Scotland.
2. Northumberland, Durham, and the North Riding of Yorkshire.
3. Cumberland, Westmorland, and the Isle of Man.
4. Lancashire, Cheshire, North Wales, and Ireland.
5. Yorkshire, except the North Riding, Lincolnshire, Derbyshire, Leicestershire, Northamptonshire, Nottinghamshire, and Rutlandshire.

[1] *Ibid.*

[2] The facts relating to the constitution and organization of this company are drawn from a return filed at Somerset House.

6. Staffordshire, Shropshire, Warwickshire, Worcestershire, Herefordshire, and Gloucestershire.

7. South Wales and Monmouthshire.

8. The counties lying to the south of a line drawn from The Wash to Bristol, other than those specified above.

The different methods of production (whether by means of shale works, coke ovens, gasworks, ironworks, or otherwise) are, as far as practicable, to be separately represented on the council. The minimum quota of production necessary to qualify for membership rises or falls with every specified increase or decrease in aggregate output, but the membership of the council is limited to a maximum of forty. The company commenced with a membership representing about 90 per cent of the British production; this percentage has since been slightly increased, and the membership now embraces producers in Canada and South Africa and nearly all the makers in India; while working agreements have been made with kindred associations in Germany, France, Belgium, Holland, Italy, Japan, and Australia.[1]

It has openly admitted not only that it controls domestic prices, but that alliance with kindred associations abroad "has made it possible to frame an international policy which has for one of its chief objects the establishment and maintenance of a reasonable price,"[2] the latter being evidently defined as one which is "calculated to induce consumption on the largest scale."[3] Without such co-operation, it maintains, "cataclysms in price could not be avoided."[4] Consumers have not suffered by this "stabilizing process," for, in accordance with the decline in costs, "prices have shown a steady decrease," falling from £23 11s. a ton in 1920 to £13 in 1925, or approximately to pre-war levels.[5] The policy of the company has undoubtedly been very enlightened and, on the whole,

[1] Official statement (*Times*), 24th November, 1924.
[2] *Vide* official statement (*Times*), 24th November, 1924.
[3] *Ibid.* [4] *Ibid.* [5] *Ibid.* (*Times*), 23rd November, 1925.

probably quite beneficial to customers as well as to members. But necessity rather than choice appears to have dictated its price policy.

It is true that it is protected against "cut-throat" foreign competition by virtue of its international alliance. But the actual course of prices is determined primarily not by it, but by the foreign producers,[1] for, though it may dominate the industry at home, it controls less than 10 per cent of the world output. It is primarily because it has adapted its prices to the world level and not because of international agreement that imports are negligible, while exports represent more than half the national output.

The company has not restricted production, because such a policy would be economically unjustifiable and, indeed, impracticable in the case of a commodity produced—as the vast bulk of it is in England—not synthetically, as in Germany (the centre of the industry), but as a by-product. Storage could, of course, temporarily prevent a glut, but the only true remedy is to reduce prices and so encourage consumption. The individual associations do not include all the producers in their respective countries, and even if they did, internal rivalry, in the form of expanding output, would still be ineradicable.

The greatest obstacle to monopoly, however, is not connected with the industry itself. It lies instead in the competition of rival fertilizers, chiefly natural nitrate of soda. This product was at one time almost exclusively used, and even as recently as 1913 provided nearly 55 per cent[2] of the total output of nitrogenous fertilizers. To-day, the proportion is about 30 per cent,[3] as against 60 per cent for by-product sulphate of ammonia and synthetic sulphate of ammonia. Its displacement (relatively, not absolutely, for its consumption has continued to increase) is directly

[1] Official statement (*Times*), 23rd November, 1925.

[2] Official statement of Nitrate Producers' Association (*Financial Times*), 1st July, 1925.

[3] *Statist*, 4th July, 1925, page 25.

due to the cheapening of sulphate of ammonia. But nitrate is still a very serious competitor, and must always remain so. It has lost ground, not because of inferiority, for it is, in fact, still the best fertilizer, but because the price of it has not been reduced sufficiently. Practically the whole supply is rigidly controlled by the Nitrate Producers' Association of Chile.[1] This body, which operates in Europe through a London committee, fixes prices and quotas of production for each member, and acts as a single selling agency for the whole industry.[2] It is, therefore, akin in organization to the Sulphate of Ammonia Federation in England. Its control is, however, much firmer, for the whole nitrate industry (which is confined to a small area in Chile) is in its hands ; the individual members are nitrate producers only (about 30 per cent being English firms) ; and the rise of new enterprises is prevented by the fact that the Chilean Government, with whose active assistance[3] the association was formed in 1919, and renewed in 1924, has agreed not to sell any of the undeveloped nitrate grounds to non-members.

On the other hand, it must be observed that the association is terminable, and possibly may not be renewed when the present agreement expires in 1930. It suffers also from the defect that the capacity of the industry (approximately 4,200,000 tons) is over twice the production allowed,[4] a circumstance which, while partially justified by the fact that nitrate, unlike sulphate, is a natural deposit, yet reacts adversely on the costs of the individual producers and gives rise to a good deal of friction in connection with allotments. Nevertheless, present prices result in larger profits to the nitrate producers than to the sulphate of ammonia makers ; and if the struggle between the two groups is to develop into warfare, the former, acting in conjunction with the Chilean Government (whose

[1] Aikman's Report, 30th June, 1924.
[2] *Ibid.*
[3] Half-yearly Report of Henry Bath & Son, 30th December, 1920.
[4] *Statist*, 4th July, 1925, page 25.

heavy tax on nitrate exports could, in an emergency, be reduced), seem likely to suffer least.

It may be affirmed, then, that while competition in fertilizers has been restricted, it has not been eliminated. The only danger is that the two groups of producers may come together and agree on a common price policy. Such an understanding was, in fact, provisionally reached at a conference of Chilean, British, German, and American associations in Rotterdam in June, 1921[1]; and were it not that the markets shortly afterwards began to recover, the agreement would probably have been put into operation.

(*d*) The Benzol and Dye Combines

The benzol trade (which is one of the principal sections of the tar distillates industry) is organized on lines very similar to those existing in the sulphate of ammonia industry. There also amalgamation, owing to physical difficulties, has made practically no headway; but co-operation has, since 1916, been secured by means of a joint selling agency or cartel. But just as in the sulphate of ammonia trade, control of prices is greatly weakened by the existence of substitutes; for benzol is, in fact, merely a subsidiary motor spirit, and the price of it is determined primarily by that of petrol. The pursuance of a monopolist policy is, consequently, quite impracticable.

In the related dye industry, the position is somewhat different. There, there is no cartel, but the bulk of the production is controlled by a single joint-stock company, the British Dyestuffs Corporation. Prior to the war, the industry was largely in foreign hands, over 90 per cent of the total quantity of synthetic dyes used being imported, principally from Germany.[2] There were, however, national conventions among the makers of aniline oil and sulphur black, the dominating influence being German; while the

[1] Henry Bath & Son, Half-yearly Report, 30th June, 1921.
[2] Report on Dyes and Dyestuffs (Cmd. 1370), 1921, page 4.

makers of alizarine were not only associated with one another, but were members of an international alliance. On the outbreak of war, the Government attempted to establish the industry on a national basis by granting liberal advances to the producers. Two of these, controlling over 75 per cent of the national output, united in 1918 to form the British Dyestuffs Corporation, the Government taking up £1,700,000 of the capital of £9,197,000, and giving protection (in 1920) against foreign competition by forbidding importation except under licence.

The combine that thus arose cannot claim a monopoly, however, for it has lost ground in spite of its immense resources; and, to-day, even with its recent purchase of a large rival (Scottish Dyes), it probably cannot claim 70 per cent of the industry. Indeed, its position has weakened so much, that, in 1925, it was compelled to write off capital and trading losses of £2,841,000 and return £1,580,000 of its idle resources to its shareholders.[1] The independent firms, though small, number more than twenty, and include several very efficient undertakings, which compete actively with the combine, particularly in the higher grades of dyes. It may be that the exclusion of foreign competition has given rise to secret agreements as to prices. But it must be remembered that imports under licence are allowed not only where adequate supplies are unobtainable at home, but where the price of the home product is considered to be "unduly high." In dealing with import applications based on the latter consideration, it is the general practice of the licensing committee to refuse a licence if the home price is not more than three times the pre-war level.[2] The licensing committee (which consists of five colour users, three colour makers, and three independent persons) has granted most of the applications received, but these represent only about 2,400 tons a year, or barely one-eighth of the total consumption.

[1] *Statist*, 21st November, 1925.
[2] So the writer has been informed by the Board of Trade.

The dye makers may, by agreement, be able to take undue advantage of the protection afforded; but there is the danger that if prices are excessive, textiles will be exported in the undyed state. In the case of the British Dyestuffs Corporation, it is, moreover, laid down that that company shall supply its products at prices which, in the opinion of the Board of Trade, are "reasonable." The Dyestuffs (Importation) Act will expire in 1930 and may not be renewed, but there is a possibility that in the meantime an international alliance may be formed between the principal dye makers. The British Dyestuffs Corporation has, in fact, already made several attempts to establish a working agreement with the German dye trust, under which the latter, in return for technical assistance, has been offered a participation in profits. The Government refused to sanction the proposals, but it is possible that as a result of the withdrawal of its right of veto and control under the reconstruction scheme of 1925, some form of agreement may now be carried out.[1] This should, of course, be facilitated by the inclusion of the company in the Imperial Chemical merger (of which particulars are given on page 99). Clearly, however, the combine, though dominating the industry, has at present very little control over prices.

[1] Official statement (*Statist*), 28th November, 1925, page 983.

CHAPTER VIII

THE EXPLOSIVES COMBINE

THERE are many industries in England in which prices are regulated by combines or associations. In most cases, this control is very limited, either because of external competition or because of rivalry between the individual parties which comprise the alliance. In one very important instance, however, namely, the explosives industry, the control approximates closely to a monopoly. This situation was brought about during the world war and with the approval of the Government, the main object being to prepare for the redundancy of productive capacity which would follow the conclusion of hostilities.

Combination had made considerable headway even before the war, the largest company being the Nobel Dynamite Trust, which dominated the blasting explosives industry at home, and had intimate working agreements abroad with German and other foreign groups. Moreover, as early as 1908 price-fixing associations had been formed in the high explosives, safety explosives, detonator, and gunpowder sections of the industry.[1] In the case of the two first-named, the associations included at the outset not only most of the home manufacturers, but two German firms. At later dates their membership was strengthened by the inclusion of other home and foreign manufacturers, the addition of the latter being intended to ensure a uniform price policy in the domestic market rather than abroad.[2] Competition, nevertheless, remained keen, prices in many cases tending to be "driven down to a level at which profits reached vanishing point."[3] The war brought about a complete change in the condition of trade, and the

[1] Report on the Explosives Industry (Cmd. 1347), 1921. [2] *Ibid.*
[3] Annual meeting, Nobel Dynamite Trust Company, 30th May, 1913.

various domestic firms began to work as a single unit under Government control. Amalgamation was considered very desirable, and as early as 1916 the leaders of the industry manufacturing blasting and mining explosives, with their auxiliary chemicals and such accessories as fuses and detonators, began to take steps towards this end. Their interests were bound up with those of the makers of gunpowder, and, therefore, with the manufacturers of sporting and military ammunition, and in this way certain large companies engaged in the rolling and other metal industries were inevitably involved.[1] Immediately after the Armistice in 1918—by which time the pre-war associations had come to embrace practically the whole industry—the various firms were amalgamated, the declared objects being "to eliminate waste and excessive overhead charges, and to secure increased efficiency and earning power."[2]

The new company—Nobel Industries—occupies a position which may be fairly described as monopolistic. Apart from Government factories, which, at present at any rate, can be ignored, there are no independent undertakings of any importance at home.[3] Nor does it seem likely that rival enterprises will be established; the obstacles in their way are exceptionally great, not the least being the difficulty of acquiring secret processes. It is true that there are foreign firms with all the necessary resources, but the opening of branches by them in this country would probably be subject to rigid Government control if it were permitted at all. Imports, except of sporting ammunition, are negligible, partly owing to physical difficulties and partly because of international agreements. The company is very closely associated with the great Dupont combine in the United States, Canada, and South America;[4] it has

[1] Official statement, 22nd October, 1920 (*Financial Times*).
[2] Prospectus, 29th October, 1920.
[3] Report on the Explosives Industry (Cmd. 1347), 1921.
[4] Annual meeting, 22nd September, 1923; and 17th September, 1926 (*Statist*).

direct financial interests in Belgium, France, Germany, and Spain, and has trade alliances with the leading continental manufacturers;[1] while, in conjunction with the De Beers Consolidated Mines, it dominates the explosives industry in South Africa.[2] It has, therefore, very little to fear from rival establishments. It can, moreover, ignore that "principle of substitution" which operates so strongly in other industries; while, as regards demand itself, there is the additional advantage of inelasticity, cost being very low in comparison with the service rendered.

Bearing all these factors in mind, it may be asked whether the combine has abused its position. Superficially at least —and any evidence on such a question is necessarily superficial—it does not appear to have done so. A committee who were appointed to inquire into the matter in 1920 found themselves unable "in the short time at their disposal" to express an opinion as to whether the prices then ruling were "reasonable or otherwise."[3] The detailed figures of costs which they sought and were provided with did, however, show (though they did not acknowledge it) that on each of the particular products specified by them the ratio of profit then being earned was less than in pre-war years.[4] Since 1921 the combine has reduced its prices on many occasions; but whether such reductions fully reflect the fall in costs it is, of course, impossible to say. That profits have not, however, been excessive seems clear from the published accounts. The figures are given on page 95, the pre-war results of the Nobel Dynamite Trust being added for comparative purposes.

It will be seen that the percentage shown as having been earned on the resources employed is very moderate and much below that which was secured by the Nobel Dynamite Trust under the competitive conditions of pre-war years. Of course, the actual earnings may, and, indeed, very

[1] *Ibid.*, 27th September, 1924.
[2] *Ibid.*
[3] Report on the Explosives Industry (Cmd. 1347), 1921.
[4] Annual meeting, 2nd August, 1921 (*Financial Times*).

probably are, considerably higher than the disclosed profits, for the combine, being simply a holding corporation, treats as revenue only those profits which its subsidiaries distribute in dividends, and takes no account of the profits which they retain. This objection, though material, applies also, however, to the pre-war results of the Dynamite Trust and, moreover, it partially destroys itself in so far as it necessarily implies that the resources of the combine are proportionately under-stated. A more important criticism is that the Dynamite Trust was the most efficient of the pre-war groups, whereas the present combine includes practically the whole industry. A further objection is that, in proportion to sales, the post-war profits may actually be higher than the pre-war profits. It may also be opposed that about one-fifth of the post-war assets consists of permanent investments which, until recently at least, have yielded little return, and which, moreover, have nothing to do with explosives, being mainly comprised of holdings in the General Motors Corporation (U.S.A.), the Dunlop Rubber Co., British Celanese, and other undertakings.

These objections have each considerable weight, but they do not appear to invalidate the conclusion that the profits of the combine have been moderate. To-day, the investments in outside undertakings are, in the aggregate, worth more than their cost price. The remaining assets,

Year	Resources Employed	Earned Thereon	Ratio
	£	£	%
1910–11	3,722,000	349,000	9·4
1911–12	3,792,000	375,000	9·9
1912–13	3,888,000	381,000	9·8
1913–14	3,991,000	381,000	9·5
1920–21	14,948,000	827,000	5·5
1921	19,273,000	809,000	4·2
1922	19,506,000	1,157,000	5·9
1923	19,832,000	1,178,000	5·9
1924	18,636,000	1,003,000	5·4
1925	18,840,000	1,092,000	5·8

which constitute about 75 per cent of the total, were acquired not at the inflated valuations ruling in 1918, but on the basis of pre-war figures. To quote the certified prospectus:[1] "A uniform method of capitalization was applied to all the companies concerned in the merger; the values of pre-war plant and buildings were fully and systematically written down; goodwill was computed entirely on pre-war results, and extensions for all purposes made during the war period were taken at one-fifth of their cost."

It remains to determine whether the combine is efficiently managed. The evidence on this point is favourable. The directors set out "to eliminate waste and excessive overhead charges," and with this object shut down many redundant or unsuitably situated factories; concentrated production in the most convenient places; and unified the various buying, selling, research, and administrative departments.[2] Centralization has often created more waste than it has eliminated, but in this instance, whether because of special organizing ability, or because the industry was particularly suitable for unification, the results appear to have been eminently satisfactory.

Whether the economies so realized have been passed on to the consumer is doubtful. It is possible, indeed, that prices, since 1920, have actually been higher than they would have been under free competition, for, in the absence of combination, the great redundancy of productive capacity might have brought about severe "price-cutting." That in the circumstances, however, prices have not been unjustifiably high, seems to be a fair conclusion. It is, of course, impossible to say what the future policy of the combine will be, but in the long run prices certainly need be no higher than the competitive level and, in view of the economies effected, may quite possibly fall below it. The consumer is to some extent safeguarded by the following

[1] Prospectus, 29th October, 1920, page 2.
[2] Official statement, 22nd October, 1920 (*Financial Times*).

conditions laid down by the Government on the occasion of the company's formation—

"If at any time the price at which the company is supplying or is proposing to supply any of its products is, in the opinion of the President of the Board of Trade, unreasonable, the said President may, from time to time, fix the maximum price of such products, due regard being had to the cost of manufacture, a reasonable profit to the company, and any other relevant circumstances, and if and so long as the maximum price of any product is so fixed, the price at which the company shall supply that product shall not exceed such maximum price."[1] It is doubtful whether the Board of Trade would be competent to decide, except within very broad limits, what constituted an "unreasonable price" or a fair "maximum price." Whether because of recognition of its inability in this respect or because the need has not arisen, it has so far not exercised its powers. It takes no action unless a complaint is actually made to it,[2] but the fact that it has authority to do so must act as a restraining influence on the combine. There is clearly no safeguard in the form of actual or potential home competition. Nor, with the possible exception of sporting ammunition, is there any foreign rivalry. On the contrary, the combine, though entirely English in ownership and management, maintains very friendly relation with foreign manufacturers, and is intimately associated financially and technically with the American and several continental groups, the agreements which exist providing in some cases for the regulation of domestic prices, and in others for the delimitation of markets.[3]

To sum up, it may be affirmed that the combine holds a monopolistic position in nearly all branches of the explosives trade. The retention of that position seems assured by the difficulties which confront the growth of new enterprises

[1] Report on the Explosives Industry (Cmd. 1347), 1921.
[2] *Ibid.* [3] *Ibid.*

in the industry, and by the inability or unwillingness of foreign firms to engage in competition. The prices charged by the combine have probably been higher than they would have been under free competition. Yet it does not appear that they have been excessive, for they have afforded only a very low return on the resources employed, despite the fact that these assets are in the main entered at less than pre-war valuations, and not on the basis of current replacement costs. Nor does it seem that monopoly has given rise, so far at any rate, to inefficiency; on the contrary, it appears to have resulted in large economies and in improved management. The combine may depart from the moderate price policy hitherto pursued, but in that case at least a partial corrective can be provided by the Board of Trade, which is entitled to investigate allegations of over-charging.

CHAPTER IX

THE CHEMICAL "SUPER-TRUST"

We have seen that three of the chief branches of the chemical industry have for some years been under the influence of combines, the soda trade being dominated by Brunner Mond and the United Alkali Co., the dye trade by the British Dyestuffs Corporation, and the explosives trade by Nobel Industries. No further degree of integration might have been thought necessary, except perhaps in the dye trade. Towards the end of 1926, however, a company was formed to acquire control of all four undertakings, the purchase price for their share capital being satisfied by the allotment of shares of a par value of £56,803,000. The constituent firms and their subsidiaries retain their separate identity and remain under the same management as formerly; but control of their policy and finance passes into the hands of the new company, whose supervisory board consists of twelve members chosen from the individual directorates. The fusion is the largest that has taken place in England, and it is distinguished from others in that it represents for the most part an amalgamation of non-competitive businesses, each of which is predominant in its own sphere. What, it may be inquired, are the advantages to be expected from the merger? They have been expressed by Sir Alfred Mond—one of the principal promoters—to be, first, "greater efficiency both technically and commercially"; and, secondly, the power "to deal with similar large groups in other countries on terms of equality . . . instead of leaving it to individual units to make arrangements for the world's competitive conditions as best they can." These arguments, though advanced by one who appears to consider the trust to be a cure for most industrial ailments, have doubtless some

force, more, perhaps, than can be appreciated by the ordinary observer. But though we are here chiefly concerned with the question of price control, it may be observed that, as far as economies are concerned, nothing can be expected from the inclusion in the merger of Nobel Industries and British Dyestuffs, since these are but distantly related to each other and to Brunner Mond and the United Alkali Co., though it is true that both obtain some of their raw materials from those undertakings. And since these latter, though engaged in the same trade, are by no means violently competitive and are each of great size, the economies arising from their fusion cannot be considerable. "Greater efficiency," allowing for the cost of the expensive supervisory board, would, therefore, seem to lie almost entirely in other directions than economy. The chief mechanical advantage indicated would appear to consist in the greater facilities which the union, by reason of the pooling of technical and financial resources, affords for research work. In this respect, however, the result is problematical, although it has to be observed that the fusion of the soda, dye, and chemical industries in Germany—which our own merger rather slavishly imitates—has been found very beneficial, even though it has been partly accidental. The alliance between English chemical makers, who know little outside their own narrow section, should, though artificial, produce good results in the long run. But for the present the chief advantage of the amalgamation has to be sought in the power of the union "to deal with foreign trusts on terms of equality," which can be broadly interpreted to mean the ability to obtain, by international agreement, a "fair" share of the world's markets. In this connection, however, it should be mentioned that the only branch of the industry in which English manufacturers are inferior is the relatively unimportant dye trade.

To sum up on the question of efficiency, it would appear that the fusion cannot be expected to yield much benefit

for some considerable time. Meanwhile, the merger will probably affect prices adversely, for the reason that the new company is rather heavily capitalized, the shares issued by it, in exchange for those of the constituent firms, being, by a liberal " watering " of the market value of the latter, £56,803,000, instead of about £39,000,000. Now, the disclosed net profits of the constituent firms in the last completed year amounted, after deducting depreciation, to £3,219,000. Very probably the real earnings were much larger; but, even if they were, it would appear that after making " reasonable " reserves—which may be taken to mean the retention of at least 10 per cent of the net profits—the divisible earnings will in future years have to be much larger if an adequate return is to be paid on the new capital. The divisible profits of the new combine, after deducting not only depreciation but reserves, are expected, on the basis of the real past earnings of the constituent firms, to exceed £4,000,000; but even on this basis the dividend on the ordinary capital would be only 8½ per cent and, on the deferred, 2½ per cent. It would accordingly appear that, until large benefits are realized, the tendency, particularly in the monopolistic explosives trade, will be to charge higher prices than would otherwise be necessary in order to remunerate adequately the inflated capital.

CHAPTER X

CEMENT COMBINES

THE Portland cement trade, though one of the most recently developed industries, has been among the first to seek in combination a solution of its economic difficulties. It may seem strange that the would-be monopolist should have been attracted to a trade in which the raw materials used—chalk and clay—while nearly always found together are yet very widely distributed. But it has to be remembered that at the time the first great combination was formed, the raw materials, though nearly everywhere available, were not very extensively worked in any district outside the specially favoured valley of the Thames and Medway, which had all the advantages of cheap water transport, great consuming markets, and raw materials of unrivalled quality. That district produced more than half the national output, and in local markets had little to fear from external competition.

The cement trade was, consequently, one of those which, in 1900, attracted the trust promoter, thirty firms being merged together under the title of the Associated Portland Cement Manufacturers. The company, with other firms which were to join it, claimed to control 90 per cent of the industry on the Thames and Medway.[1] But their proportion of the total trade proved to be less than 45 per cent,[2] and prices, instead of being "steadied," fell sharply, competition being intensified by a decline in demand and by the development of production in other districts. Local alliances of cement makers succeeded in controlling prices in certain small areas, but the trade generally remained severely competitive until 1912, when the combine acquired thirty-three of its rivals and merged them into a new

[1] Prospectus, page 2, 1900. [2] *Statist*, 21st July, 1923.

company, known as the British Portland Cement Manufacturers, in which it took a 70 per cent interest. The combine thereby secured control of about 75 per cent of the productive capacity of the industry ; and as the works acquired were situated in various parts of the country and not confined to the Thames and Medway Valley, the distribution of its products was greatly simplified. The company has since made further acquisitions, but much of its plant has become redundant ; and its effective productive capacity, including that of its subsidiaries, is, to-day, probably only about 2,400,000 tons, or less than 70 per cent of the total capacity of the industry. Its proportion of the domestic trade is probably less than 60 per cent, for, unlike outside firms (whose foreign trade is very small), it has to export about one-quarter of the output controlled by it. Imports, moreover, are considerable and are steadily increasing.

The combine, by itself, clearly cannot control prices. But control—within certain limits at least— is imposed by a much more comprehensive organization, namely, the Cement Makers' Federation.[1] This body was created, in 1918, as an amalgamation of three great war-time associations—the Cement Makers' Alliance, the Inland Cement Manufacturers' Alliance, and the Tyne and Tees Alliance. Its admitted objects include the fixing of minimum prices and the regulation of the terms and conditions of sale. The federation does not control the production of its members, nor is there any profit pooling or compensation scheme in existence. For the purpose of price control, the home market is divided into specified areas, each with a committee of manufacturers appointed by the federation. These committees are empowered to make, by a unanimous decision only, increases in the prices ruling in their respective areas, and any such increases are binding in the areas in question upon all members of the federation. There is also a committee which has authority to regulate export

[1] Report on Cement and Mortar (Cmd. 1091), 1920 ; and *Statist*, 21st July, 1923.

prices ; its operations have, however, been suspended since 1919. In dealing with the distributing trades, rebates are granted, the maximum allowance being made to those merchants who bind themselves to buy only from members of the federation ; to sell to the consumer at not less than schedule prices ; and to conform to all other terms as to discounts, packages, etc. The federation, representing approximately 90 per cent of the cement industry, has about twenty-six members, each of which holds one vote at all meetings, irrespective of capital or productive capacity. The Associated Portland Cement Manufacturers and its subsidiaries, having only eight votes in all, do not, therefore, control the federation, though their productive capacity is much greater than that of all the other members combined. The operations of the federation are, of course, confined to the domestic trade, but this does not explain the comparatively weak voting power of the largest member, for its output is, roughly speaking, divided equally between the home and export markets.

The facts given above show that the first essential of monopoly, namely, the combination or association of existing producers has been fulfilled. Rigid control is, however, very difficult, for a number of reasons. One is that the members of the federation can withdraw at will. Another is that prices can only be increased by a unanimous decision. A third reason is that there is considerable actual and potential competition. As regards existing rivalry, it has to be noted, first, that imports, which were at one time negligible, have been steadily increasing in recent years, as shown by the returns given on page 105.

It will be seen that while exports, compared with 1913, have fallen in quantity by 7·2 per cent, imports have risen by over 100 per cent. It will also be noticed that there has been a marked relative improvement in the quality of the cement imported, the value per ton (deducting freight charges, etc., for comparative purposes) being practically as high as for exports. This is a serious development for

the combine, for it was just the very superior quality of its products that formed its greatest protection against foreign competition in pre-war years.

The second point that has to be considered in regard to existing competition has reference to the home industry. There the post-war boom in the building trade has called into existence a large number of new enterprises, and others are being established in various parts of the country. There are practically unlimited sources of raw material; the process of manufacture is relatively very simple; and the capital invested, which at present probably exceeds £25,000,000, can, owing to the bright prospects of the industry, be easily augmented by public subscription.

The existence of a comprehensive federation naturally enables the cement makers to exploit the large measure of national and local protection conferred by the heavy cost of transport. And there can be little doubt that prices in recent years have been considerably higher than they would have been under such competitive conditions as ruled in pre-war years. It is significant in this connection that, although the cost of production has fallen sharply, the inland price of best cement,[1] while only about 60 per cent higher than in 1914, has shown only a comparatively small reduction during recent years. Yet it is doubtful

Year	Imports		Exports	
	Tons	£ (c.i.f.)	Tons	£ (f.o.b.)
1911	74,366	96,199	715,607	1,095,293
1912	122,331	164,097	644,575	1,019,844
1913	108,324	143,102	748,753	1,274,828
1920	48,438	219,518	617,636	3,273,825
1921	105,711	518,755	289,736	1,659,849
1922	133,106	439,744	385,577	1,253,317
1923	146,906	395,493	558,052	1,505,644
1924	160,694	418,708	651,220	1,609,135
1925	217,452	539,443	695,186	1,768,560

[1] 58s. to 63s. 6d. per ton (London).

whether present-day profits, while much greater than in pre-war years, are excessive in relation to invested capital.

Until recent years there was scarcely any industry so unprofitable as cement-making. The cement combine was itself for a long time in serious difficulties, and has only recently attained a sound position. In its case, it is true, the original capitalization was excessive, for the purchase price (£6,325,000) was calculated on the basis of approximately nine times the "record" profits of a boom period, and those profits were, moreover, subject to heavy charges for depreciation and management.[1] But it would be unjustifiable to argue that, because the actual profits during the acute depression which followed the company's formation proved to be only half the "record" profits of 1899–1900, the capitalization had been correspondingly excessive. It would be fairer to take the mean between the boom and depression profits and deduce that only one-quarter of the capitalization was unjustifiable. In the case of the company's subsidiary—the British Portland Cement Manufacturers—it would, on the other hand, be reasonable to argue that the purchase price (£3,101,000) of the properties and investments acquired by it in 1911 was unduly low, having been entirely based on depression profits.[2] Roughly, the subsidiary's capitalization per ton of productive capacity was, by comparison with that of the company, as 1 : 2, which, other things being equal, would represent an under-valuation of one-third in its case in contrast with an over-valuation of one-quarter in that of the company. But it would follow that as the bulk of the ordinary capital of the subsidiary was taken up by the company, the latter thereby reduced the amount by which it had been initially over-capitalized. It would, moreover, be reasonable to assume that there has been considerable inherent appreciation in the assets since 1914 as a result

[1] Prospectus, 1900, page 2.

[2] Prospectus, 1912, page 2. See also report of annual meeting, *Times*, 9th April, 1925.

of the rise in the general level of values, and the recent pronounced revival in the cement trade. Even assuming, however, that the assets are in the aggregate still considerably overvalued, it would not appear that the profits are excessive. The certified figures for the company and its subsidiary are as follows, the earnings on the resources employed being shown after deducting depreciation and after crediting dividends on investments in subsidiaries—

Year	Associated Cement				British Portland Cement			
	Resources Employed	Earned Thereon	Ratio	Depreciation	Resources Employed	Earned Thereon	Ratio	Depreciation
	£	£	%	£	£	£	%	£
1911	7,196,000	279,000	3·9	110,000	—	—	—	—
1912	7,291,000	304,000	4.2	32,000	—	—	—	—
1913	9,230,000	504,000	5.5	116,000	3,466,000	244,000	7·0	44,000
1914	9,153,000	456,000	5·0	102,000	3,498,000	270,000	7·7	45,000
1921	8,901,000	430,000	4·8	229,000	3,880,000	321,000	8·3	155,000
1922	8,807,000	461,000	5·2	209,000	4,362,000	317,000	7·3	130,000
1923	9,589,000	359,000	3·7	219,000	4,336,000	315,000	7·3	130,000
1924	9,482,000	358,000	3·8	297,000	4,307,000	321,000	7·5	155,000
1925	9,445,000	543,000	5·7	351,000	4,386,000	514,000	11·7	255,000

The prolonged depression in the building trade has been the chief cause of the poverty of the combine. Defective management has, however, been an important contributory factor. The company started with works that were obsolescent and paid far too much for them.[1] The type of plant that had been acquired, giving only intermittent output and requiring all hand labour, had already been scrapped by foreign producers, though it was still widely in use in England. Under more intelligent control the combine would have quickly modernized its plant. But the management was both unwieldy and inferior. The company began with nineteen ordinary and twelve managing directors, and its organization was based on management by committees, which meant divided responsibility and control.[2] The

[1] Chairman's speech at annual meeting, 8th April, 1925 (*Financial Times*).
[2] *Ibid.*

personnel of the directorate was, moreover, by no means brilliant, though it is doubtful whether it was inferior to that of other cement firms in England. Some progress was made with the modernization of the plant, but it was not until 1924 that the management was properly reorganized. Many of the old directors were then replaced by more enterprising men and, instead of divided control by committees, definite responsibilities were given to a single chief in each of the three main departments—namely, production, sales, and finance. Each of these chiefs was, moreover, given control not merely of his department of the company's own works, but of the corresponding department of the company's works of the British Portland Cement Manufacturers and every other subsidiary firm.[1] Complete co-ordination, together with clearly defined responsibility, has thus been secured, and this has been made the more effective in practice by the concentration of staffs and improvements in the methods of manufacture.

To sum up, it is clear that the cement combine can neither by itself nor in conjunction with the rivals with which it is associated, pursue a monopolist policy, being deprived of that power by the existence of considerable foreign and domestic competition, and by the ease with which new enterprises can be established. Partly for these reasons the policy adopted in regard to prices has been moderate, though less so than is suggested by the published accounts, the low percentage return which these show being largely explained by over-capitalization.

[1] *Ibid.*

CHAPTER XI

ASSOCIATIONS IN THE CLAYWARE TRADES

In recent years, many other kinds of building material besides cement have been brought under the influence of associations. There has, it is true, been very little amalgamation in the various trades, production being still mainly in the hands of small private enterprises. But in several sections, notably in the brick, lime, tile, pottery, and drain-pipe trades, comprehensive associations have been established. This development is recent, being, as in the cement trade, largely achieved during the period 1912–1918. The obstacles to co-operation were at first formidable, for the producers were numerous and badly organized. Probably in normal circumstances these obstacles would have proved insuperable. But the penury to which the various firms had been reduced by the prolonged depression in the building trade eventually made control seem imperative. Many producers came together in 1912, and the influence of the war on industrial psychology greatly accelerated the movement that had thus begun. Some of the associations were severely affected by the post-war depression, but the recent revival in the building trade has enabled them to reconsolidate their position.

One of the first sections to adopt co-operation was the "greystone" mortar trade. Prior to 1911, competition had been exceedingly severe, demand having fallen far below productive capacity. The chief reason for the decline was the depression in the building trade, but an important contributory cause was the growing substitution of Portland cement for mortar, which tendency was accelerated by the inefficient methods of production used by the lime burners. The association that was formed in 1911 includes in its membership nearly all the existing greystone lime

burners.[1] It does not regulate output or work under a profit-pooling scheme, but it fixes the minimum selling prices to both the merchant and the consumer. The loyalty of the merchant is assured by means of an agreement for exclusive trading, and that of the producer by an arrangement whereby the members of the Builders' Merchants Alliance bind themselves to take supplies only from those who conform to the rules of the association. Monopoly, however, is impracticable for various reasons. One is that there are several other lime-producing areas in close proximity to the greystone area (which is confined to the south-east of England), and even within that area there are vast undeveloped supplies of greystone chalk which can easily be acquired and developed by small enterprises. Another obstacle to the monopoly is the competition of inferior building limes, and especially of cement, which product, though much dearer, is gradually displacing other kinds of mortar. The association, though immune from direct foreign competition, has, therefore, only very limited power.

The position in the brick trade is somewhat similar. Prior to the war, "over-production caused market prices to be out of balance with the cost, and many brick manufacturers were forced to go out of business. What little prosperity there was in the trade moved in cycles, but almost invariably the losses made counterbalanced the profits."[2] Towards the end of the war, many associations were formed, and every district has now its own. Most of them are small groups formed to protect local markets, but two are of considerable importance, the Pressed Brick Manufacturers' and the Stock Brickmakers' Association. Co-operation has been facilitated by the fact that

[1] The facts regarding this association are taken largely from the Report on Cement and Mortar (Cmd. 1091), 1921, page 13. See also *Statist*, 21st July 1923.

[2] Report on the Brick Trade (Cmd. 959), 1920, page 3. Many of the facts given are drawn from this report. See also *Statist*, 4th August, 1923.

manufacture in the one case is mainly concentrated in the Peterborough district,[1] and in the other case on the estuary of the Thames and Medway. The associations control most of the output in their respective districts, but their power is restricted. Locally, perhaps, a good deal of protection is afforded by the high cost of transport. But the bulk of the production has to be sent to the great consuming centres, and there the outputs of the rival associations compete, subject only to the limitation imposed by the fact that the one class of brick is not always so suitable for certain purposes as the other. Moreover, the formation of new enterprises is easy, and foreign competition, particularly in the machine-made pressed bricks, is becoming appreciable, the number of bricks imported rising from 535,000 in 1922, to 7,372,000 in 1923, 85,042,000 in 1924, and 159,000,000 in 1925.[2] The home productive capacity is probably twenty times greater than the present volume of imports, but the proportion of the output exported is insignificant.

It is difficult to form an opinion as to the influence of the associations on prices. It would, however, appear that, while preventing prices from falling unduly during the depression, they have prevented them from advancing unduly since the advent of the building boom. Their declared policy is "stability,"[3] which, in the long run, may, of course, quite possibly mean higher average profits than competition would have allowed.

The Drain-pipe and Pottery Associations

The drain-pipe trade[4] is regulated by a much more intricate system than that prevailing in other branches

[1] Many of the associated firms in this district have recently been amalgamated into a single company—London Brick and Forders.

[2] Board of Trade Returns.

[3] Annual Report of the London Brick Company and Forders (Ltd.), March, 1925.

[4] The facts relating to associations in this trade are drawn from the Report on Stone, Brick and Clayware (Cmd. 1209, 1921). See also *Statist*, 4th August, 1923.

of the clayware industry. For the purpose of convenience, the various districts, to the number of four, are each controlled by separate associations, which work together, though they are not actually affiliated. As in the case of other trades dependent on the building industry, associations arose from a common desire to raise prices to a profitable level. The principal group—the Midland Pipe Association—was formed in 1912, its object being—

(1) To regulate minimum selling prices and maximum discounts and rebates.

(2) To compensate members for temporary loss of trade.

(3) To preserve to each member his due proportion of the trade.

(4) To promote agreements for the observance by other associations of prices in the Midland area, and vice versa; and for the preservation of the trade of the association in areas other than the Midland area.

For the purposes of (1) and (2), members pay or receive compensation according as their sales exceed or fall short of the quota allotted to them. The third object, that of preserving to each member his due share of the trade, is secured by giving those whose sales are less than the agreed proportion the right to quote reduced prices. This option, of course, may not be exercised if the compensation allowed for short sales is sufficient. The association, which has a membership of from twenty-five to thirty, fixes the minimum prices at which its members shall sell to the merchants, and at which the latter shall sell to the consumers, special rebates being granted for "exclusive" trading. Competition with the kindred groups which exist in the Potteries area, the Dorset and Devon area, and the Northern area is avoided by close working agreements between each district. The power of the associations is enhanced by the absence of serious foreign competition. But the rivalry of domestic firms, which, in 1921, was considered to be negligible, appears to be increasing, and in the event of prices being unjustifiably raised might easily become formidable,

for manufacture can easily be taken up, particularly by firms engaged in the related brick and pottery trades.

The control of prices in the tile trade[1] presents considerably greater difficulties. The two allied associations which exist—one for glazed and flooring tiles, and the other for roofing tiles—seek, like the Midland Pipe Association, to preserve to each member his "due" share of the trade; but in their primary aim, that of regulating prices, they are baulked by outside competition. The rivalry of domestic producers is not so formidable and might possibly be remedied, but that of foreign firms is becoming more and more severe, the imports (in cwts.) of glazed and floor tiles being 37,000 in 1922, 97,000 in 1923, 116,000 in 1924, and 170,000 in 1925; and of roofing and other tiles, 231,000 in 1922, 331,000 in 1923, 839,000 in 1924, and 2,159,000 in 1925.[2]

In the pottery trade,[3] the regulation of prices also presents great difficulties. There are associations for each of the various sections of the industry, the clay producers being usually distinct from the manufacturers. Production is concentrated in four or five counties, the chief centre being North Stafford, where it is estimated that there are more than 300 separate potteries. The industry is still almost entirely in the hands of private firms, amalgamations into large units having made practically no headway owing to the high degree of specialization and the importance of hand labour. The industry occupies a strong position in the world's markets, its exports being nearly £6,500,000 yearly.[4] But imports, though they have fallen since pre-war years, are still heavy, amounting annually to about £1,000,000. This competition, which extends

[1] The particulars relating to the associations in this trade are taken largely from the Report on the Stone, Brick and Clayware trades (Cmd. 1209), 1921.

[2] Board of Trade Returns.

[3] The particulars relating to associations in this trade are taken largely from the Report on Pottery (Cmd. 1360), 1921. See also *Statist*, 4th August, 1923.

[4] Board of Trade Returns.

practically to all kinds of pottery, would undoubtedly increase rapidly if the associations attempted to adopt a monopolist policy. Nor is this the only factor which restricts their control of prices, for there is also the competition, actual and potential, of a large number of non-associated home producers. It may be concluded, therefore, that, while in nearly every branch of the clayware industry co-operation has replaced the reckless competition of pre-war years, there is in no case a rigid control of prices, this being rendered impracticable by foreign and home competition.

CHAPTER XII

THE NON-FERROUS METALS TRADES

(*a*) The International Copper Association

Combination in the copper industry, which, like other non-ferrous metals trades, is carried on chiefly abroad, does not come fully within the scope of an inquiry into industrial alliances in England. In view, however, of the fact that the annual imports of the metal exceed £12,000,000, and that the principal domestic manufacturers were at first parties to the existing alliance, it may be of interest to examine the position. The copper trade, for many years the centre of severe competition, was, in October, 1926, brought under the control of a world-wide organization designed to "stabilize" prices, the American manufacturers who produce the bulk of the output, being for this purpose associated with the producers in Spain, the Belgian Congo, Chile, Germany, England, and other countries. It is important to observe that the association, though registered in the United States, does not control prices in that country, being precluded from doing so by law, which allows no combination except for the purpose of foreign sales. But outside the United States—where competitive conditions are less severe—the association is free to act. It hopes to achieve its object not by restricting production, but by stimulating consumption and by eliminating the middleman and the speculator. Superficially, the association would appear to be well armed to achieve its purpose, since it is estimated to control over 90 per cent of the world's production.[1] Its tendency will doubtless be not merely to prevent "wide fluctuations in prices," but to "stabilize" them at a higher level than at present exists.

[1] *Statist*, 16th October, 1926, page 587.

This may be achieved either by allowing demand to overtake productive capacity, or by deliberately reducing supplies. The American manufacturers, without whose co-operation the others could not be expected to curtail supplies, are, it is true, forbidden to engage in any act in restraint of internal trade in the United States. But under the Webb Pomerene Act, which legalizes the present association, they would appear to be at liberty to restrict exports in concert,[1] and in any case the American Government would find it difficult to impute to combination the failure of their exports to respond to an expansion in foreign demand. Any pronounced manipulation of prices would, however, appear to be impossible in view of the looseness of the bond that unites the various producers. Already, in fact, considerable friction has arisen, resulting in the withdrawal of the English member (the British Metals Corporation), and in trade circles it is thought that the association is very unlikely to be permanent.

(*b*) Aluminium Conventions

The aluminium industry is of recent origin, for, though the metal was discovered about one hundred years ago, it could not be worked in commercial quantities until towards the end of last century. Production has since increased rapidly, particularly in the United States, which at present controls over half the total output, the remainder being divided between Switzerland, Norway, Germany, France, and England.

In each country, control rests largely in the hands of a single company. Owing to this concentration it was found possible to form an international convention as early as 1901,[2] the bond between the various producers being the exclusive use of the electrolytic patents. The expiry of these in 1905 gave rise, however, to new competition, and the syndicate collapsed in 1908. It was revived in 1912

[1] Jones, *Trust Problem in U.S.A.*, page 387.
[2] *Ironmonger Year Book*, 1917, page 131.

and reconstituted in 1926, each member being given possession of its domestic market.

The manufacturers are, to some extent, protected by their exclusive ownership of the bulk of the supplies of ore. But they are dealing with a metal which is not very suitable for monopoly, for though by reason of its unique qualities it is indispensable for some purposes, for others it has to compete actively with such metals as copper and tin. In England, the controlling firm, though very efficiently organized, has earned only about 10 per cent a year on its capital during the past decade. It obtains its supplies of ore from its own mines in France and deals chiefly in the semi-finished metal. But while it may secure a non-competitive price for the latter, it must bear in mind that, unless that price is moderate, its customers will find it difficult to compete with foreign manufacturers in finished products. There is no restriction on the import of such goods, and at present there is keen German competition in certain products, especially aluminium ware. The company, consequently, cannot claim a monopoly, even if there is nominally little competition in the metal itself.

(c) International Zinc Conventions

The zinc industry in England is relatively very small. The output is, in fact, barely 5 per cent of the world total, the chief centres of production being the United States, Belgium, Germany, and France. The American smelters obtain their ore from domestic mines, but nearly all the European firms have to import their supplies from Australia.

In pre-war years, competition in European markets was regulated by means of a convention, which was formed in 1909 and elaborated in 1910, its membership being as follows [1]—

Group A. Comprising the associated German and Belgian

[1] *Vide* Quin's *Metal Handbook*, 1915.

makers, whose output was regulated and disposed of by a joint-selling office.

Group B. Comprising certain Belgian and French producers, whose members sold independently, but were bound by the regulations regarding output.

Group C. Comprising the English makers, who acted as those in Group B.

The terms of the association provided for restriction of output when monthly stocks amounted to 50,000 tons, and the average price had for two months been below £22 a ton (London). The convention came to an end on the outbreak of war in 1914, and has not yet been revived. Competition appears to be restricted to some extent, but a monopolist policy is impracticable, partly because of the rapid development of new sources of supply.

(*d*) Lead Conventions

Lead, like other non-ferrous metals, is not extensively produced in England, but very large quantities are imported in the raw state and finished in the home works. The imports were handled in pre-war years by a branch of an international convention, which operated successfully until 1915, when it was broken up by the secession of the Australian producers.

Raw lead appears to be a fairly free market at present, many new sources of supply being available ; but two of the most important finishing branches of the industry—namely, the white lead and red lead sections—are under the control of very strong allied associations. The White Lead Convention regulates prices and conditions of supply, and, until recently, its selling arrangements included a rebate to those buyers who undertook not to import or sell foreign white lead. Towards the end of 1924, however, the disparity between home and import prices became so great, that certain grinders began to buy foreign material ; and the convention, which had been shaken already by

reports of disloyalty among its own members,[1] was compelled to bring the official quotation into line with the import level, and substitute for the rebate system a scale of discounts payable to those who dealt only with its members. Both the White Lead and Red Lead Conventions are working successfully at present and outwardly appear very stable, but their control over prices is restricted by potential foreign competition, which may, however, be circumscribed by international agreements.

[1] *Vide* the *Ironmonger*, 18th October, 1924.

CHAPTER XIII

THE ENGINEERING TRADES

(*a*) Shipbuilding Combines

Firms in the engineering trades have, generally speaking, shown little tendency to amalgamate or to work in units comparable in size with those which exist abroad. Shipbuilding provides one of the few important exceptions. That industry is concentrated in three small districts, the North-east coast, the Clyde, and Belfast; and about two-thirds of the total capacity is controlled by ten enterprises, the largest being Harland & Wolff, Swan Hunter, Northumberland Shipbuilding, Armstrong Whitworth, Vickers, and Cammell Laird.[1]

Competition, at least in tendering for certain types of vessels, appears to be restricted by understandings, but a monopolist policy is impracticable. Productive capacity, which, owing to war-time extension, is now about 3,000,000 tons, is greatly in excess of demand. Moreover, the superior competitive power which English builders possessed in pre-war years, and which by combination they could then successfully exploit, has largely disappeared; and though they still produce more than half the world's tonnage, they are now forced, by severe competition, to accept contracts yielding little or no profit. A protective tariff is, of course, quite inapplicable to an industry such as shipbuilding; and the present readiness of many ship-owners to give preference, even at a heavy cost, to home builders cannot be indefinitely exploited. This can only be done in the armament section; and the State perhaps should not complain if the tenderers, whose difficulties are so largely due to war-time development, combine to extract

[1] *Vide* the *Statist*, 9th June, 1923.

reasonable terms for the execution of the few Government contracts which are issued from year to year.

(*b*) The Electrical Engineering Association

English electrical engineering was very backward in pre-war years, the consumption of electricity in this country having then been almost negligible in comparison with that of other leading industrial nations. Since 1913, however, the output has greatly increased, and the capital invested in the industry now probably exceeds £50,000,000; while the manufacturers supply nearly 25 per cent of the world market.[1] In the heavy branches of the industry, large organization is essential. Amalgamation has, consequently, been marked, and has led to control being concentrated largely in the hands of five companies—the British Thomson-Houston, English Electric, Metropolitan-Vickers, General Electric, and Armstrong Whitworth. In other sections, the number of separate enterprises has tended to increase rather than to diminish. Taking the industry as a whole, it may be said that competition is very active. There is, however, an association which, while concerned largely with general trade matters affecting the industry, is also engaged in regulating prices and conditions of sale for certain work. The association compels its members, under penalty of fines, to notify inquiries and to submit copies of their invoices, their books being open to it for inspection. Prices are fixed by agreed-on curves, from which the individual firms compile tables to suit their particular standard. Acceptance of an offer at a price below the curve is permitted only where the member can supply written proof that that price has been quoted by a non-member. The association does not concern itself with export prices. It appears to have the support of nearly all the important home manufacturers, but

[1] Evidence given before Committee on Industry and Trade, May, 1925 (*The Times*).

its power is greatly restricted by foreign competition, and prices for some years past have been barely remunerative.

(c) Cable-makers' Associations[1]

Cable-making is an industry in which there has been little amalgamation. The number of rival firms is, however, by no means large, for there are only about seventeen important makers of electric supply cables, five of telephone and telegraph cable, and four of submarine cable. All three kinds of conductor are, moreover, sometimes made by the one firm.

Competition among the makers of electric supply cable has for long been restricted by an association. This body is registered as a trade union and is, therefore, precluded from regulating prices. Its primary function since its formation in 1899 has simply been to compel its members to produce a cable of a standard quality. But while it pursues this laudable purpose, its members individually fix prices by agreement. A rebate is given for exclusive dealing, while special benefits are granted to those customers who are members of the Electrical Contractors' Association.

There are only a few firms of any importance outside the association, and foreign rivalry, at least in the home market, is negligible. This immunity may be merely evidence that the price policy adopted is moderate, but it must be recognized that the quality of English cable is generally so high, and the specifications laid down by public authorities so strict, that prices could probably be largely increased before foreign competition would become serious. On the other hand, there is nothing to prevent the rise of new enterprises in the industry. The large profits that have been earned for some years past appear to be attributable not so much to the control of prices, as to the inability of

[1] The facts relating to these associations are drawn largely from the Report on the Electrical Cable Industry (Cmd. 1332), 1921.

the producers to keep pace with the great increase in demand. At any rate, the association does not appear to have acted unreasonably, and there has been a marked absence of hostility towards it, both on the part of the customers and on the part of the non-associated firms.

The Telephone Cable-makers' Association is an informally constituted organization and distinct from the Cable-makers' Association, although all its members are also members of that association. Since its formation in 1907 (following a period of severe competition), its principal function has been to regulate prices and allocate orders among its members. The association controls about 95 per cent of the industry, but it has to deal not with a multiplicity of unorganized consumers, but with the Post Office, by which Government department the whole telephone system of the country is operated. The Post Office has not always been satisfied as to the reasonableness of the prices charged by the association, and in 1920 sought permission to hold an independent examination of the books of one of the members on the basis of whose costs prices have always been submitted. The investigation showed that the margin of profit was not unreasonable and had not been so at any time since the formation of the association. As a result of the negotiations, it was reported that an agreement was arrived at whereby "the price governing cable contracts was to be based on the ascertained cost of manufacture at an efficient factory, plus a certain percentage for manufacturer's profit."[1] That agreement, if it was ever put into operation, no longer exists,[2] but it serves to show that if prices are at times unduly high, the Post Office, while unwilling to accept foreign tenders even where these are much below those of the home makers, is in a position to bring strong pressure to bear on the association.

[1] *Ibid.*, page 6.
[2] So the writer has been officially informed by the Post Office.

(*d*) Electric Lamp-makers' Association[1]

Patents may for a while confer a monopoly, but long before they expire they are inevitably challenged or superseded by other processes. Sometimes they overlap, and the rival claimants have then either to institute costly litigation or combine with one another. The choice of the latter course explains the origin of the Electric Lamp-makers' Association. This organization was formed in 1913 by the General Electric, British Thomson-Houston, and Siemens' companies, and was joined later by the Edison-Swan, Metropolitan-Vickers, English Electric, and smaller firms, a condition of the original agreement being the interchange of factory and laboratory experience. The association thereby came to control over 90 per cent of the industry.

A Government Committee of Inquiry reported, in 1920, that the association fixed wholesale and retail prices, and granted special rebates for "exclusive trading." Owing to this system the non-associated maker, it was stated, could sell his goods without hindrance only to Government departments and other large buyers. It was further alleged that in the matter of certain materials, such as bulbs and caps, the non-associated makers were at a disadvantage by reason of the influence exercised by associated firms on the makers of such components. The three original members of the association were charged with imposing onerous conditions upon those whom they allowed to use their patents, e.g. limitation of output and a stipulation that the validity of their patents should not be questioned. The committee scouted the idea of foreign competition, and recommended that the association should, though it had done much for the industry and, during the war, had kept prices lower "than they might otherwise have been," be subject to "public supervision and control."

The organization of the association may not have changed

[1] The facts relating to this association are drawn largely from the Report on the Electric Lamp Industry (Cmd. 622), 1920.

materially since 1920. But, clearly, the demand for public control has proved unnecessary. Prices have, in fact, collapsed in the industry, and imports have risen steadily from 839,000 lamps in 1920 to 19,440,000 in 1925.[1] The only compensation has been a slight increase in exports, which for 1925 amounted to 7,002,000 lamps. Prices having become very unprofitable, negotiations for an international alliance were set on foot early in 1925, the main object aimed at being the regulation of production and distribution on a world-wide basis.[2] Subsidiary objects were stated to be joint research, standardization, and propaganda by means of international committees. It was reported in February, 1925, that an "agreement had been reached on all main points,"[3] but this does not appear to be working. The fact that, in each of the chief producing countries, control of the industry is concentrated, should facilitate agreement, but the principal difficulty appears to be that certain large continental makers do not wish to relinquish the fortuitous advantages which they at present possess. In any case, the English firms, producing as they do only about 6 per cent of the world output, can never exercise a dominant influence on the course of prices.

[1] Board of Trade Returns. (The imports of wireless valves are not included in the figures given.)

[2] *Ironmonger*, 14th February, 1925. [3] *Ibid.*

CHAPTER XIV

THE FOOD INDUSTRIES

(*a*) The Meat Combines

While combination is often impeded by foreign rivalry, it is sometimes a direct result of it. The meat combine is an important example. In this case the principal English importers had long felt the need of some organization which would enable them to present a united front against the growing power of the great American combines, whose policy from the beginning was alleged to have been the continued reduction of the trade held by English firms.[1] It is very doubtful whether the American companies did, in fact, ever resort to "unfair" competition on the English market; but their strength, in an industry in which mere size counts for much, gave them distinct advantages over their rivals; and it was largely, though by no means entirely, for self-defence that the latter were merged in 1923 into a single concern—the Union Cold Storage Co.[2]

The combine that thus arose owns its own chilling establishments, fleet, cold stores, and retail stalls. It controls probably 40 per cent of the beef imports into England, while the American firms of Swift and Armour supply about 45 per cent, the remainder, which consists mainly of frozen beef, and as such does not compete directly with chilled beef, being supplied by independent firms. No one of the three can alone control prices, nor could the three together do so except within narrow limits, fixed partly by the competition of home-killed beef (which represents about half the total consumption); partly by the competition of other meat; and partly by the highly perishable nature of the product dealt in.

[1] Interim Report on Meat (Cmd. 1057), 1920.
[2] *Vide* the *Statist*, 10th November, 1923.

The fact that chilled beef must be put into consumption almost immediately after being landed has made the regulation of imports imperative, the only alternative being a constant succession of over-supply and under-supply, with all its attendant evils. Accordingly, a committee of importers has long existed (but, as in 1925–1926, has sometimes not functioned effectively), whose purpose is to ensure as far as possible that the total quantity reaching port at any time does not exceed what the market can absorb. There is nothing sinister about this organization ; it performs, on the contrary, a service of great public utility.[1] But there is obviously a danger that imports may be so regulated as to ensure equilibrium at prices which are excessive. Has this danger materialized ? The evidence on the point is reassuring. There is, first, the testimony of the Royal Commission of 1925. That body reported that the Freight Committee, in its attempt to regulate imports, is " handicapped to some extent by the very real rivalry which exists between the different importing companies and the necessity of seeking a compromise between a number of different organizations which are not under one control, but are actively competing with one another in the sale of imported meat.[2] Even in the Argentine stock markets, which provide nearly the whole supply of chilled beef, and which are more at the mercy of the refrigerators than the ultimate consumers, "any attempt to fix prices, at any rate over a long period, would certainly break down and is no part of the policy of the refrigerator companies."[3] The Commission further stated that " heavy losses " were made in 1924 by the importers owing to miscalculation of demand or to dislocation of the shipping programme through accidents and weather conditions." Of course, such losses, though demonstrating the weakness of the conference, afford no criterion as to

[1] Report of the Royal Commission on Food Prices (Cmd. 2390), 1925, page 118.
[2] *Ibid.*, page 117.
[3] *Ibid.*, page 116.

whether results averaged over a long period have been reasonable. But the Commission is reassuring on this point, for all it can say is that, taken over such period, "the business of meat importing is profitable."[1] How remunerative the trade has actually been may be judged from the following results abstracted from the accounts of the Union Cold Storage Co.—

Year	Resources Employed	Return Thereon	Ratio
	£	£	%
1920	6,678,000	377,000	5·6
1921	6,640,000	449,000	6·8
1922	6,662,000	447,000	6·7
1923	10,508,000	587,000	5·6
1924	10,509,000	708,000	6·7
1925	13,065,000	779,000	6·0

The return on capital during the past five years has clearly been considerably below what might be allowed as reasonable in a trade which is so highly speculative. Its inadequacy may, perhaps, act as a stimulus to an agreement with the American combines. Up to the present, however, the relations between the rival groups have not been friendly;[2] and, for the reasons already given, there appears to be little danger that, even if an agreement were reached, it would enable them to charge exorbitant prices, except over a very short period. As it is, the very conference of which they are members is itself subject to strong disruptive forces, having temporarily broken down during 1925–1926. The ensuing glut of supplies forced prices in March, 1926, to a level estimated to involve importers in a loss of £10,000,000 per annum.[3]

The system of import regulation may possibly mean

[1] Report on Food Prices (Cmd. 2390), 1925, page 129.
[2] *Ibid.*, page 117.
[3] Meeting of English and Dutch Meat Company, 9th March, 1926 (*Financial Times*).

higher average prices over a long period than would exist under conditions of wholly unrestricted competition. But such competition would clearly be unadvisable even if it were practicable. The system appears to have been to the advantage of the consumer, but it is one which in theory at any rate is open to suspicion. The Royal Commission on Food Prices has, in fact, recommended that the Government should " exercise a continuous supervision of the South American meat importers, and for this purpose obtain regular information as to programmes of shipment costs and profits, and the inter-relations of the various meat companies trading between South America and this country."[1] " The Food Council should have statutory powers to obtain all information that it may require, and have power to appoint a representative to attend meetings of the Freight Committee." It should " exert its influence to secure the more harmonious and efficient working of the existing system by acting as an impartial observer and counsel, rather than attempt to impose a cast-iron system of State control," for such control would be likely to " accentuate the difficulty of obtaining supplies and even increase the ultimate cost to the consumer."[2]

The Royal Commission recommended similar supervision of the New Zealand Meat Producers' Board.[3] This organization is unique in that it is a creation of Parliament designed to control the exports of meat from New Zealand (which country supplies the bulk of the mutton imported into England). The Board has even the power (though this has not so far been exercised) to take over the wholesale and retail marketing of New Zealand meat throughout the world, and it is the sole authority entitled to make freight contracts with the shipping companies. In this respect it is akin to the South American Freight Committee, but there is this important difference that, with the exception of two Government nominees, the New

[1] Report (Cmd. 2390), 1925, page 119.
[2] *Ibid.* [3] *Ibid.*, page 120.

Zealand Board represents the primary producers and not the refrigerator companies. It is true that the former continue to compete in the sale of their stock, but they determine the flow of exports, and they are, consequently, able to secure higher prices from the refrigerator companies and, therefore, from the ultimate consumer than would otherwise be possible.

The refrigerator companies are naturally concerned not in maintaining a level of prices which affords a fair profit to the producers, but in stabilizing prices at a level which, however depressed from the point of view of the producers, at any rate affords them a profit. For this reason it is, in theory at least, even more important that the New Zealand Board should be supervised than the South American committee. The Royal Commission has found that the Board has not "deliberately withheld or diverted supplies from the British market or directly or indirectly restricted production."[1] But it considers it "essential that the operations of the Board should be subject to continuous and sympathetic observation by a body representing all interests concerned in this country."[2] A council of this kind "in close and constant contact with the imported meat trade in all its ramifications would be in a position to co-operate with the Board in the legitimate and beneficial object which it seeks to achieve, and to intervene with friendly counsel if at any time the Board should be led by pressure on the part of the producers in New Zealand to take any action which might be construed as detrimental to British interests."

The recommendation in favour of surveillance has been adopted by the Government as part of a general scheme of supervision of food prices. This significant departure in the traditional attitude of the State merits special mention. Here it will suffice to say that the Food Council is likely to exercise a useful influence. On the evidence supplied, the necessity for its supervision does not, however,

[1] Report (Cmd. 2390), page 123. [2] *Ibid.*, page 124.

appear to be pressing. Indeed, it may be affirmed that, although the vast bulk of the imported beef and mutton trade is controlled by a very small number of groups, competition still predominates, and is probably even more active than in many trades in which the outer semblance of freedom is much greater.

(*b*) The Milling Associations

It has been shown that, in the meat trade, concentration of ownership has not led to monopoly, but, on the contrary, has tended to intensify competition. In the milling trade a somewhat similar tendency is noticeable. Fifty years ago there were 10,000 corn mills in England,[1] all of relatively small size. To-day, when the requirements are much greater, nine-tenths of the output is produced by 300 mills,[2] owned by a still smaller number of firms. This concentration, which has been partly due to amalgamation, as exemplified by the formation of Spillers' Milling and Associated Industries—a post-war merger of about nine firms owning net resources of approximately £5,000,000[3]—has, moreover, been accompanied by the establishment of numerous associations.[4] Yet such bodies have in recent years been quite unable to assure a reasonable profit to the industry, the primary reasons being, first, the purely local character of the associations; secondly, the progressive decline in the price of wheat; thirdly, the growth of foreign competition; and, finally, the existence of a very large surplus of productive capacity. The chairman of the Spillers' combine thus described the position in 1923: "Millers . . . have scrapped their regard for economic principle and competition has degenerated into a desperate cut-throat policy."[5] Compared with the pre-war average of nearly 3 per cent, the combine made a profit on

[1] Report of Royal Commission on Food Prices (Cmd. 2390).
[2] *Ibid.* [3] *Statist*, 1st May, 1926.
[4] Report of Royal Commission on Food Prices (Cmd. 2390), 1926, page 58.
[5] Annual meeting, 7th May, 1923 (*Times*).

turnover of only 1·23 per cent in 1923, and ·73 per cent in 1924; while in 1925 it actually incurred a loss, amounting in the aggregate to £430,000. Other firms also suffered and were exhorted to combine, but without success.

The conditions which have recently prevailed have admittedly been exceptional, and should change for the better once the progressive depreciation in the price of wheat has been arrested. For it is this factor which, more than any other, has intensified competition, particularly on the part of the smaller millers, whose trading stocks are, as a rule, relatively much lighter than those of the combines. The market in wheat—although the contrary is often suggested—is subject to "keen and unrestricted competition";[1] and monopolization of the home supplies by the combines would be worthless even if it were practicable for the reason that the vast bulk of the wheat consumed is imported from abroad, where the conditions are exceedingly competitive, notwithstanding the formation of farmers' co-operative selling agencies in Canada, Australia, and other producing centres. The Spillers' combine did, indeed, try recently to obtain an advantage over its smaller competitors by buying line elevators on the spot in Canada, but it found the experiment very ill-advised and had to withdraw at a heavy loss.

To sum up. While the milling industry is not immune from those concentrative tendencies which exist in other trades, it is still far from being monopolistic; competition tends rather to be accentuated because of excessive productive capacity and the growth of foreign rivalry.

[1] Report of Royal Commission on Food Prices (Cmd. 2390), 1925.

CHAPTER XV

THE ALCOHOL AND YEAST COMBINE

THE whisky trade has been declining for many years, the home consumption, owing to greatly increased taxation, being, in 1925, only about one-third of what it was in 1900.[1] The resulting surplus of productive capacity, combined with the heavy financial burdens imposed by the State, has had the effect of greatly accelerating amalgamation in the industry, particularly in recent years.

The Distillers' Co. now controls both the whisky industry and the related yeast and industrial alcohol trades. As regards the first, the company, as a result of a persistent policy of absorption, culminating in 1925 in the acquisition of the great Buchanan and Walker combines,[2] controls over 80 per cent of the grain and malt whisky production, and also predominates in the highly important blending and merchant sections of the trade. Its power over prices is, however, limited by several factors. One is that, though there is no foreign competition—the whisky trade being almost as purely English as the champagne trade is French—there are, among a large number of independent distilleries, several over which the company has little, if any, advantage as regards cost of production. As regards distribution, which is largely a distinct industry, the control of blending and wholesale merchant business and of well-known brands is of vital importance, and in this respect the company is certainly in a favoured position. It is, however, still very far from being able to close the blending and distributing channels against its rivals. Moreover, power to create an artificial scarcity is limited by the fact that the productive capacity of the independent firms, like

[1] Reports of the Customs and Excise.
[2] *Statist*, 7th February, 1925, page 230.

that of the company itself, is greatly in excess of demand. It is restricted still further by the fact that it is the custom of the trade to carry several years' stocks of whisky (apart, of course, from immature spirit). Control of the retail trade presents still greater difficulties, for whisky reaches the consumer chiefly through houses controlled by the brewer, who, however much he may dislike competition in beer, certainly does not desire a whisky trust. Finally, the price of whisky must be determined to a large extent by the price of other stimulants. Demand, moreover, is in itself very elastic, as may be judged from the fact that the increase in the spirit duty since 1908 from 11s. to 72s. 6d. a proof gallon has reduced home consumption from 32,000,000 proof gallons to 13,000,000 proof gallons.[1] It may be concluded, therefore, that, despite its absolute immunity from foreign competition, the company has no monopoly of whisky, though its prices are doubtless well above the level that would prevail under free competition, bearing in mind the great redundance of productive capacity.

The company's position in the industrial alcohol trade is somewhat different. There it controls nearly the whole domestic production, having in recent years absorbed most of those firms with which it had been loosely associated for the purpose of price control since 1907. Moreover, the product in which it deals has, unlike whisky, no substitute; bears very little taxation; and is being used in increasing quantities, the home consumption in 1925 being about 9,000,000 proof gallons. On the other hand, rival enterprises can be more easily established in the industrial spirit trade than in the whisky trade proper, and the factor of foreign competition cannot be ignored, for the industry is widely established abroad, particularly in Germany. Imports, it is true, though much heavier than in pre-war years, represent only about one-third of the industrial spirit used in the pure state and barely 3 per cent of the

[1] Report of the Customs and Excise, 1925.

spirit used in the denatured or methylated state (which is the form in which 90 per cent of the total quantity of industrial alcohol is consumed).[1] Pure alcohol is allowed to be used for industrial purposes only where methylated spirit is proved to be unsuitable. The two are not, therefore, directly competitive, and this may perhaps help to explain why actual foreign rivalry, though very strong in the one case, is almost negligible in the other. But even in the latter case, it is certain that imports would rise if prices were increased. An international alliance may ultimately be found practicable, seeing that the industry abroad is concentrated in comparatively few hands; but under present conditions, the company clearly cannot manipulate prices without encouraging imports.

The position in the yeast trade is very similar. There, also, the company controls practically all the domestic output. It supplies a product which has no substitute, which is a prime necessity of life, and for which demand is, therefore, inelastic. There are, it is true, no insuperable obstacles to prevent other distillers from engaging in the production of what is essentially a by-product in spirit distillation; but the fact remains that they have not entered the trade, and if they did enter it they would be confronted in distribution with strong organizations which are under the influence of the company.[2] There is, however, one factor which destroys what would otherwise be a monopoly, namely, foreign competition. At one time, practically the whole trade was, in fact, in the hands of foreign firms, but the company and its allies had captured two-thirds of it by 1914, and during the war period supplied the whole market. Even in 1920 they supplied over 90 per cent of the estimated consumption of 33,000 tons,[3] but to-day the proportion is less than 70 per cent, for imports have been quadrupled in the interval, this increase being attended by a fall in the import price per ton from about £79 to £66.

[1] Report of the Customs and Excise.
[2] Report on Yeast (Cmd. 1216), 1921. [3] *Ibid.*

In the absence of an international agreement (which has often been mooted and may quite possibly be formed), it may, therefore, be affirmed that in yeast, as in industrial alcohol, the company cannot take full advantage of its control of home production.

Ability to lever up prices to the import level or, as in the whisky trade, to fix them without any regard to potential foreign competition, may, of course, be of very material advantage. In this connection it is significant that, though the company and its allies have been affected by the heavy decline in the consumption of whisky, they have, in common with other distillers, steadily increased their profits, as the following figures, abstracted from their published accounts, show—

Year	Distillers			Buchanan-Dewar			Walker		
	Resources Employed	Earned Thereon	Ratio	Resources Employed	Earned Thereon	Ratio	Resources Employed	Earned Thereon	Ratio
	£	£	%	£	£	%	£	£	%
1910–11	2,900,000	244,000	8·4	—	—	—	—	—	—
1911–12	3,063,000	274,000	8·9	—	458,000	—	—	—	—
1912–13	2,946,000	256,000	8·7	—	460,000	—	—	—	—
1921–22	4,913,000	485,000	9·9	7,005,000	887,000	12·7	—	—	—
1922–23	5,257,000	650,000	12·4	7,195,000	959,000	13·3	—	—	—
1923–24	6,001,000	708,000	11·8	7,347,000	1,103,000	15·0	5,069,000	932,000*	18·4*
1924–25	7,179,000	1,205,000	16·8	7,616,000‡	1,024,000	13·4	5,240,000	536,000†	10·2†
1925–26	14,313,000	2,160,000	15·1	7,615,000‡	1,059,000	13·9	5,197,000	774,000	14·9

* Period of 14 months. † Period of 10 months.
‡ Excluding, for comparative purposes, secret reserves of £2,000,000 transferred from subsidiaries.

The Company's profits, which are arrived at after providing fully for all taxation, include only that part of the earnings of subsidiaries which the latter have thought fit to distribute. On the other hand, its resources do not take account of that part of the capital of the subsidiaries which is held by outside investors, nor, what is more important, do they include the reserves and undivided profits accumulated and retained by those undertakings since the date of acquisition. Probably a consolidated statement would show that the percentage earned on the total resources

employed has been much less than is shown by the published accounts. Indeed, in the case of the Distillers' Co., it has been officially stated[1] that the percentage earned in 1924–1925 was only 9½ per cent, instead of being, according to the published accounts, 16·8 per cent. This may be true, but the fact remains that the company, on the very reasonable assumption that it took no more in that year from the subsidiaries than it was entitled to, earned 16·8 per cent on the resources invested by it. This return is very high, though it must be borne in mind that the percentage, as in the case of Buchanan-Dewar and Walker, is based on assets which, while largely inflated by costly post-war acquisitions, include, on the other hand, resources that are entered not at present-day values, but at low pre-war figures.

The terms on which the company has acquired the control of the Buchanan-Dewar and Walker firms, are so designed as to prevent excessive capitalization, for the purchase price was paid in shares which, though worth about £20,000,000, are of a par value of only £6,575,000. The total par capitalization of the three companies, excluding the prior issues of their subsidiaries, is, in fact, approximately only one-half of the market valuation. This great merger has not been inspired primarily, at least, by a desire for economy. Its real purpose has been described rather naively by the chairman of the Distillers' Co. as follows :[2] "As stocks of mature whisky increase in volume, the tendency for each company to strive for a larger proportion of the trade will be bound to lead to increased competition, with the inevitable result that prices will begin to droop until some of the smaller firms may find it hard to withstand the strain. If, therefore, the competition among the larger firms can be minimized, the effect upon the smaller firms is bound to be beneficial without it being necessary to close the door to that healthy competition

[1] *Statist*, 25th July, 1925, page 153.
[2] *Ibid.*, 14th March, 1925, page 439.

which the public have a right to expect and to which no sensible business firms can take the slightest objection." Commenting later on the amalgamation, the chairman stated:[1] "It is obvious . . . that there is a very considerable overproduction of whisky taking place and, if this is not checked, it will mean a debacle in the trade which only the strongest may survive. Each distiller hangs back hoping that his neighbour will restrict so that he may continue working full. This is not a matter that can be remedied by one distiller or company of distillers, but must be tackled by the whole distilling trade." The argument is commendably honest, and perhaps reassuring to those who see in every amalgamation a monopoly. But it scarcely demonstrates that what is "good for the trade" is necessarily good for the consumer.

[1] *Ibid.*, 25th July, 1925, page 153.

CHAPTER XVI

THE TOBACCO COMBINES

We have seen that, in the meat trade, foreign rivalry has not impeded but accelerated combination. In the tobacco industry its effect has been similar. Prior to 1900, foreign competition was slight, and the individual manufacturers, being generally prosperous, showed little inclination to amalgamate. The trade tended, it is true, to pass more and more into the hands of large undertakings, such as Wills', but this development was the outcome not of combination, but of the introduction of greatly improved machinery.

In 1901, however, the industry was suddenly convulsed by a singular event. A newly-formed American trust (the Consolidated Tobacco Co.), which, by amalgamation, had acquired control of the industry in the United States, launched a violent attack on the English market, buying out one of the principal manufacturers and frightening the others by threatening to spend £6,000,000[1] in capturing the European trade. In self-defence, seventeen of the leading English firms united to form the Imperial Tobacco Co. This alliance was followed by still greater competition, in the course of which the American firm offered the distributors the whole profits on its English business for a term of four years.[2]

The struggle for supremacy ended suddenly in September, 1902. It was agreed[3] that each side should be given possession of its home market, and that the export trades of both should be acquired and carried out by an undertaking registered in England—the British-American Tobacco

[1] Official statement, 21st September, 1901 (*Financial Times*). Quoted by Macrosty Trust Movement, page 229.
[2] Official circular, 26th March, 1902.
[3] Official announcement, 29th September, 1902 (*Times*).

Co.—of which the American combine (the larger exporter) was given control, being allotted a two-thirds interest, with the right to nominate twelve of the eighteen directors. A reckless struggle thus ended in a great international alliance.

The subsequent history of the two combines may be briefly outlined. The American Co., which had already acquired control of 93 per cent of the output of cigarettes, and 62 per cent of the output of plug and twist tobacco in the United States,[1] continued its policy of absorbing competitors. Many weaker concerns were virtually driven out of business or forced to sell to the combination, either by the direct competition of the latter or as an indirect result of the vigorous competition between the combination and larger independent concerns.[2] The trust had no monopoly of raw leaf, but its quasi-monopoly of liquorice paste, and of the best patented machinery, was a source of great strength to it.[3] It checked the growth of independent concerns by selling its so-called "fighting brands" at a loss, which affected only the fringe of its business, but commonly affected the total business of the independents.[4] It encountered strong public disfavour, but turned this into a weapon by the simple process of secretly acquiring a controlling interest in a number of "anti-trust" concerns and using the latter as a highly effective engine of warfare against the real independents.[5] Yet, "despite enormous expenditure on advertising schemes, and despite frequent price-cutting by means of its so-called 'fighting brands' and its bogus independent concerns, there was, in several branches of the industry, a constant tendency for competitors to gain business more rapidly than the combination and thus to reduce its proportion of the output. This tendency was overcome only by the continued

[1] Jones' *Trust Problem in the United States*, 1922, page 131.

[2] Report on the Tobacco Industry (U.S.A.), Part I, page 39. Quoted by Jones' *Trust Problem in the United States*, page 154.

[3] Jones' *Trust Problem in the United States*, pages 144, 150.

[4] *Ibid.*, page 151. [5] *Ibid.*, page 152.

buying-up of competitive concerns."[1] The trust, by the adoption of this costly policy, increased its proportion of the plug and twist tobacco trade between 1900 and 1910 from 62 per cent to 85 per cent;[2] but in the more important cigarette trade, its control, despite much larger acquisitions, fell from 93 per cent to 86 per cent,[3] this decline being due largely to the growing preference of the public for hand-made cigarettes.[4] The trust was destined, however, to be broken not by its competitors, but by the Federal Trade Commission, for, having abused its power, it was summarily dissolved by Government edict in 1911, being split up into fourteen separate concerns, which were forbidden to "combine, make loans to one another, or have common officers or directors."[5]

The Imperial Tobacco Co. followed a very different policy from that of its erstwhile partner. It held, in 1903, a much weaker position than its ally, for it controlled only 47 per cent[6] of the home trade. But it determined to increase its proportion not by absorbing or attacking its rivals, but by improving its efficiency. Its declared motto has been "live and let live,"[7] and it has been able to practise it all the more religiously because the home demand, in spite of greatly increased prices, has been rapidly growing, rising year by year from 82,919,000 lb. in 1902 to 107,181,000 lb. in 1913, and 133,555,000 lb. in 1925.[8] Of this expansion, the combine secured the largest proportion up to 1923, when it claimed 60 per cent to 70 per cent[9] of the trade. Its progress, which has recently been relatively less,

[1] Report on the Tobacco Industry (U.S.A.), Part I, page 39. Quoted by Jones' *Trust Problem in the United States*, page 154.

[2] Report on the Tobacco Industry (U.S.A.), Part III, page 49.

[3] *Ibid.*, Part III, page 153.

[4] Jones' *Trust Problem in the United States*, page 140.

[5] *Financial Times*, 12th December, 1912.

[6] Annual meeting, 16th February, 1904 (*Statist*, 20th February, 1904).

[7] *Ibid.*

[8] Board of Trade Returns.

[9] So the writer has been informed by one of the leading independent firms.

however, may be primarily attributed to superior management. Important contributory factors have been the advantages which it has possessed by virtue of its size. Equally important, perhaps, has been its ownership of the most popular brands of cigarettes and tobacco; for the public taste, though tending to change with each generation, can only be diverted directly from one brand to another of identical quality by lavish expenditure on advertising. The maintenance of this public preference has been facilitated by the retention after amalgamation of the constituent firms' own names; indeed, not only have the individual businesses, though being merely branches of the one firm and possessing no separate identity, retained their original titles, but they continue to employ nominally independent travellers and representatives.[1] Finally, it must be observed that from the beginning the distributors have, by means of bonuses on sales, been given a strong personal interest in "pushing" the combine's brands.[2]

There can be no doubt that the company wields an immense influence. Indeed, it has been asserted that the circumstances of the industry are such as to enable it to dictate the prices at which the great majority of consumers purchase the common standard lines of tobacco and cigarettes.[3] The independent firms, on the admission of one of the largest of them, "exist only on sufferance," for "a business of such magnitude, commanding so extensive an influence on the retailers and possessing such large reserves, has it in its power, by forgoing its ordinary profit for a short time, to cut prices to such an extent as to place all its rivals out of business and secure the entire, or very nearly the entire, monopoly of the tobacco trade. In that case, while the consumer would, for a short time, have the benefit of low prices, such an organization would be able, as soon as the monopoly was secured, to raise prices to almost any extent desired."

[1] Report on the Tobacco Industry (Cmd. 558), 1920, page 4.
[2] *Ibid.* [3] *Ibid.*, page 5.

Yet it may seriously be doubted whether the strength of the combine is so great as was suggested. It could, no doubt, crush all its competitors by the adoption of "trust" tactics, but in so acting it would do itself grievous harm and run the risk of strong public disfavour and eventually of Government intervention. But, perhaps, in the long run, it would be better for it if it changed its present price policy and made things a little less easy for its competitors. It is allowing many of them to establish themselves firmly, and the time may soon come when, by internal development or by amalgamation, they will be able to compete very strongly with it. Indeed, since 1922 (the Government committee's report had reference to the conditions in 1920) it appears to have been very concerned by the progress of certain independent firms, and has been obliged to imitate them by resuming advertising on a lavish scale, introducing sometimes in its announcements the rather plaintive note that: "After all, old friends are the best."

It is difficult to form an estimate of the numbers of independent firms. The Government returns[1] would suggest that, despite the great increase in production, the number has been very considerably reduced, for they show that the number of licences issued has fallen from about 492 in 1902 to 309 in 1925.[2] But these figures cannot be taken as representing the number of separate manufacturers, for, in the first place, each firm has to hold a separate licence for each individual set of premises; and, in the second place, no distinction is drawn between independent and controlled firms. The figures are, however, of value in that they indicate that individual plants have been concentrated and greatly enlarged as a result of the introduction of improved machinery. It is probable that the number of independent firms is at present over seventy.

[1] Reports of the Commissioners of Customs and Excise.
[2] The figures for the Irish Free State have been excluded for each year.

Many of these are of very little importance, and it would appear that in some cases they obtain their supplies of raw leaf from the combine itself. But there are several firms which have reached large dimensions, and which probably can manufacture as cheaply as any of the individual branches of the combine. They may not be so well situated as the latter in regard to the purchase of leaf and machinery, but their handicaps in this respect appear to be rapidly dwindling. Nor does it appear that they are penalized by the "bonus" agreement which exists between the combine and the retailer. They have, of course, been compelled to introduce their own bonus schemes, but that is ordinary commercial rivalry. The agreement naturally provides that the retailer shall give the company's products "an effective and preferential window display," but it does not stipulate exclusive trading or window display. Indeed, not only does the combine administer the scheme fairly, but it does itself freely handle and display its rivals' products in its own shops.

All the available evidence seems to point definitely to the conclusion that the combine, though it controls most of the output, could not raise prices at will without running a serious risk of losing trade to the independent firms.

It remains to examine the situation in regard to foreign competition. Here it may be said at once that there is almost complete autonomy, for while the imports of raw leaf exceed £16,000,000, the imports of manufactured tobacco (except cigars) are only about £140,000.[1] But this is not owing to any international agreement. It is chiefly because, since the struggle of 1901, the Treasury, while greatly increasing the duties on both unmanufactured and manufactured tobacco, has placed on the latter a proportionately much heavier tax,[2] thereby conferring on home manufacturers a great measure of protection. This

[1] Board of Trade Returns.
[2] Reports of the Commissioners of Customs and Excise.

discrimination was never intended as part of a Protectionist policy, having been purely a Free Trade idea, but it is a feature of the tobacco duties which is certain to be permanent. And even if discrimination were removed, it is doubtful whether foreign competition would now become serious, for the public taste in England has gradually become adapted to a kind of tobacco which is quite different from the foreign product.

The question here arises as to the relations which now exist between the Imperial Tobacco Co., the British-American Tobacco Co., and the remnants of the American Tobacco Trust. The exact position cannot easily be determined. It is clear that up to 1911 the American and the Imperial were the sole owners of the British-American.[1] But the dissolution of the American Co. in 1911 involved the distribution as dividend of its controlling interest in the British-American and of its considerable holding in the Imperial.[2] The United States Courts annulled, moreover, the 1902 agreement which provided for the division of markets.[3] But it does not appear that the dissolution was followed by the resumption of competition between the various parties. The British-American, being a company registered in England, continued to function as before and, indeed, remains partly under American management, but its capital (which had been greatly increased) ceased to be held mainly by Americans. In 1915 only £2,412,000 out of a total registered issue of £10,129,000 was held in America,[4] nearly all the remainder being held in England and the British Dominions. To-day, though the directorate of the company retains an American complexion, the proportion of the capital held by Americans is probably much less, so that in ownership as well as in name the British-American is primarily English. It is not controlled or directed by the Imperial, but the latter holds about

[1] Official statement, 19th May, 1910 (*Statist*, 24th May, 1910).
[2] *Times*, 30th December, 1913, and 16th February, 1914.
[3] *Financial Times*, 17th February, 1913.
[4] Official announcement, 15th February, 1915.

£5,800,000 of its ordinary capital of £23,496,000,[1] and nominates two of its seventeen directors.[2] Moreover, the Imperial and the British-American turn out identical brands and appear to purchase leaf supplies jointly. As under the 1902 agreement, the Imperial continues nominally to confine its trading operations to the home market, and the British-American (though holding no shares in the Imperial) to the foreign market.[3] But the British-American, no doubt with the approval of the disquieted Imperial, appears to have acquired a large indirect interest in the home market by buying shares in nominally separate firms, and actively developing them as part of a plan to meet the competition of the independents. The British-American manufactures extensively abroad, and has established a quasi-monopolistic position in the colonies and certain foreign countries, but it does not appear to have come into collision with any of the firms which form part of the original American Trust. Nor, on the other hand, have those latter invaded the English market, though this, perhaps, may be partly explained by sheer inability in face of the differential tobacco duties.[4] It may, therefore, be concluded that, though the Imperial does not control the British-American, its relations with it are such as to provide a guarantee of close partnership. If ever that alliance were broken, the Imperial would be under the fire of its own guns. That contingency, however, seems too remote for consideration. Nor need thought be given to the possibility that American firms, in order to evade the differential tobacco taxes, may establish factories in England. Foreign competition can, in short, be ignored.

The influence of the combine on prices is a question on which it is very difficult to form a definite opinion. Certain

[1] So the writer has been authoritatively informed.

[2] Annual Report.

[3] Official statement, 12th January, 1925 (*Financial Times*); and 30th December, 1920 (*Statist*).

[4] It may, however, be worth recording that one of the branches of the original American Trust (Liggett & Myers) has recently attempted to introduce its products into England.

facts, however, seem to provide material for generalization. First, for the period from 1902 to 1919 there is the testimony of a Government committee (whose constitution had, if anything, a Socialist bias) that the existence of the Imperial Tobacco Co. "had not resulted in raising the price of tobacco or cigarettes to the consumer; but, on the contrary, had tended in the opposite direction."[1] Nor had the company "so far exercised any injurious influence on the trade." Witnesses expressed the opinion that "its activities, generally speaking, had been beneficial to the retailer and to the community, though the evidence with regard to the latter was less directly representative than with regard to the former." The committee added that "as the combination controls less than two-thirds of the trade, it has been compelled to maintain against its competitors high-quality goods at the lowest possible prices." This has "reacted upon the competitors themselves by forcing them also to purchase the best quality of raw materials and to turn out finished goods which are not inferior to those of the Imperial Tobacco Co."

The conclusion, quoted above, that the combine "has been compelled to maintain against its competitors high-quality goods at the lowest possible prices," seems to conflict with the finding of the same committee that the combine "has it in its power practically to dictate the price at which the great majority of consumers purchase the common standard lines of tobacco."[2] This latter finding does not appear to be based on convincing evidence. But it must be observed that the period dealt with, namely, 1902 to 1919, was one in which the combine could not easily have pursued a monopolist policy, for up to 1914 it probably did not control substantially more than half the national output; and between 1914 and 1919 the fixing of prices rested not so much with it or its competitors, but with the Government.

[1] Report on the Tobacco Industry (Cmd.) 558), 1920, page 6.
[2] *Ibid.*, page 5.

The question is, however, whether since 1919 there has been any change in the policy which the committee attributed to the combine. On this point it must be noted that there has been no reduction in selling prices since 1920, despite the fact that costs in the interval have fallen sharply. The average import value (per lb.) of American leaf (which is used almost exclusively) has moved as follows: 1919, 2s. $0\frac{5}{8}$d.; 1920, 3s. 1d.; 1921, 1s. $11\frac{1}{4}$d.; 1922, 1s. $10\frac{3}{4}$d.; 1923, 1s. 9d.; 1924, 1s. 9d.; 1925, 1s. $7\frac{3}{4}$d.[1] Accompanying this reduction has been a heavy decline in the cost of coal, paper, and freight; the main item of cost, namely, the tobacco duty, remaining unchanged at 8s. 2d. to 10s. $4\frac{1}{2}$d. a lb. It would follow that if selling prices were fairly remunerative in 1920, they are now highly profitable. But is this true only in the case of the combine? Clearly it is not. The independent firms, on the contrary, are in some cases even more prosperous than their great rival, so that the absence of a reduction in prices cannot be attributed to their inability to compete. The combine may in recent years have departed from its pre-war policy. But if it has done so, it has given its competitors an excellent opportunity to strengthen their position. This is demonstrated by the published accounts of the company and its competitors. The certified figures are given on pages 149–50, the results being given not merely for a selected few, but for all these companies whose shares are publicly held. The profits of the British American Tobacco Co. are included for comparative purposes.

The figures are instructive. They show, first, that notwithstanding greatly increased deductions for taxation and depreciation, the profits in nearly every instance are at present exceedingly high in proportion to the resources employed. They show, secondly, that the expansion in profits since 1920 has been very pronounced, and that present earnings are many times greater than in pre-war years.

[1] Board of Trade Returns.

Year to 31 Oct.	Imperial			British-American		
	Resources Employed	Earned Thereon	Ratio	Resources Employed*	Earned Thereon	Ratio
	£	£	%	£	£	%
1902	17,410,000	1,043,000	6·0	—	—	—
1903	17,703,000	1,086,000	6·1	—	—	—
1904	18,009,000	1,256,000	7·0	—	—	—
1905	18,247,000	1,520,000	8·3	—	711,000	—
1906	18,514,000	1,558,000	8·4	—	752,000	—
1907	18,666,000	1,779,000	9·5	—	1,031,000	—
1908	19,041,000	1,752,000	9·2	—	1,063,000	—
1909	19,285,000	1,886,000	9·8	—	931,000	—
1910	19,503,000	2,040,000	10·5	—	1,358,000	—
1911	19,796,000	2,405,000	12·1	—	1,656,000	—
1912	19,808,000	2,598,000	13·1	8,707,000	1,981,000	22·8
1913	19,051,000	2,899,000	15·2	10,237,000	2,152,000	21·0
1914	20,024,000	3,027,000	15·1	11,561,000	1,966,000	17·0
1919	25,181,000	4,138,000	16·4	14,929,000	3,777,000	25·3
1920	34,478,000	5,744,000	16·7	20,210,000	4,879,000	24·1
1921	46,645,000	6,049,000	13·0	25,007,000	4,323,000	17·3
1922	47,308,000	7,199,000	15·2	25,334,000	4,401,000	17·3
1923	47,899,000	7,475,000	15·6	25,545,000	4,495,000	17·6
1924	48,331,000	8,369,000	17·3	25,855,000	4,866,000	18·8
1925	48,859,000	8,885,000	18·2	26,275,000	5,145,000	19·6

Year to 31 March	Cope			Hill		
	Resources Employed	Earned Thereon	Ratio	Resources Employed	Earned Thereon	Ratio
	£	£	%	£	£	%
1911	432,000	7,000	1·6	292,000	9,000	3·1
1912	437,000	4,000	0·9	292,000	7,000	2·4
1913	433,000	9,000	2·1	289,000	6,000	2·1
1914	433,000	9,000	2·1	—	—	—
1915	447,000	40,000	9·0	312,000	59,000	18·9
1920	458,000	43,000	9·4	322,000	40,000	12·4
1921	472,000	34,000	7·2	368,000	16,000	4·3
1922	476,000	73,000	15·3	367,000	15,000	4·1
1923	520,000	100,000	19·2	362,000	25,000	6·9
1924	583,000	118,000	20·2	367,000	30,000	8·2
1925	635,000	125,000	19·7	378,000	27,000	7·1
1926	677,000	119,000	17·6	411,000	40,000	9·7

* Year to 30th September.

Year to 31 Oct.	Carreras			Phillips		
	Resources Employed	Earned Thereon*	Ratio	Resources Employed†	Earned Thereon	Ratio
	£	£	%	£	£	%
1911	227,000	23,000	10·1	404,000	11,000	2·7
1912	236,000	37,000	15·7	403,000	13,000	3·2
1913	339,000	31,000	9·1	404,000	4,000	1·0
1914	351,000	30,000	8·5	402,000	37,000	9·2
1919	556,000	93,000	16·7	—	—	—
1920	754,000	50,000	6·6	779,000	*Dr.* *284,000*	—
1921	778,000	88,000	11·3	586,000	16,000	2·7
1922	792,000	95,000	12·0	602,000	54,000	9·0
1923	803,000	182,000	22·7	672,000	55,000	8·2
1924	903,000	481,000	53·3	709,000	75,000	10·6
1925	1,132,000	778,000	68·7	923,000	166,000	18·0
1926	1,562,000	1,148,000	73·5			

* Subject to income tax. † Year to 31st December.

Thirdly, they indicate that the independent firms, which, unlike the combine, eked out a poor existence in pre-war years, are now, in some cases, relatively more prosperous than their great competitor. As to the increasingly high level of profits, it must, of course, be allowed that demand has been rapidly expanding for many years, the annual home consumption having been 82,919,000 lb. in 1902, 107,181,000 in 1913, and 133,555,000 lb. in 1925. It must also be allowed that the profits are expressed as percentages of assets which are, to a large extent, entered not at present high prices, but at their pre-war valuations. But when every allowance has been made, it is still difficult to avoid the conclusion that present prices are less competitive than those of pre-war years. On the other hand, it is quite clear that the competitive power of the independent firms is now much greater and that new capital is rapidly being attracted to the industry.

All the manufacturers contend that prices cannot be reduced until the tobacco duty is lightened. That levy is undoubtedly an impediment, for it represents about four-fifths of the selling price, and a reduction in other

costs cannot, therefore, be easily passed on to the consumer so long as the latter continues to buy only in small quantities at a time. But the manufacturers could, if they so wished, escape this difficulty by reducing the price for large quantities or by improving the quality of their goods. That they have not done so, at least to any appreciable degree, does not indicate collusion between them or manipulation by the combine, but rather the inability of supply to cope with demand. Rivalry, which is at present largely confined to lavish advertising, will inevitably bring about a change, however, and it will be interesting to observe how the independent firms fare in the struggle. They can now compete far more effectively than in pre-war years; and though it is true that the combine controls the bulk of the trade, the conclusion seems very clear that it cannot "dictate" prices.

CHAPTER XVII

THE MATCH COMBINE

PRICE regulation has long been a feature of the match trade in England. Indeed, as early as 1907, all the firms outside the Swedish group had, partly for defensive reasons, become associated for this purpose, and worked under a system whereby the total business of the group was first pooled and then divided between the members in agreed proportions.[1] The association could not, however, dictate prices, for a large part of the trade was in the hands of the Swedish exporters or their English subsidiaries.

The position, to-day, is that, as a result of a series of amalgamations during the war and post-war periods, practically all the purely English firms are owned by the Bryant & May Co.,[2] while the others are controlled by the Swedish Match Co.—a combine with world-wide ramifications. The English company alone is as incapable of dictating prices as was the association out of which it has grown. Indeed, it is probable that it controls less than 60 per cent of the total home sales, for imports, despite differential duties, represent over one-third of the total consumption[3]; and a large trade is carried by those English factories which are under foreign control. There is, it is true, an association which embraces both groups and which, while largely concerned with general trade matters, also deals informally with prices. A uniform policy does not, however, appear to be practicable, for there is considerable jealousy between the various members, especially between those who manufacture only and those who do an import trade in addition.[4] If it were

[1] Report on the Match Industry, 1920.
[2] *Vide* the *Statist*, 22nd September, 1923.
[3] Annual Report of the Customs and Excise, 1925.
[4] Report on the Match Industry, 1920.

merely a question of agreement between Bryant & May and the Swedish interests, a common policy would be easy enough, for the Swedish Match Co. controls the whole Swedish industry and owns the only important English firm outside the Bryant & May group.[1] But as it contributes probably no more than half the total imports into England,[2] a combination of the two firms would not confer a monopoly. It must, however, be recognized that both are on friendly terms and have on some occasions actually co-operated in the buying of raw materials.[3] There is, indeed, a danger not only of a working agreement in the English market, but of a much wider combination abroad, for the Swedish Co., through a series of amalgamations, controls over one-third of the total world trade and "maintains amicable relations with all its rivals."[4]

As to the question of prices in the English trade, it has to be observed that these have been maintained despite the large reduction that has taken place in costs since 1920. This may not, however, be evidence of the suppression of competition, for a reduction in costs cannot easily be passed on so long as the match duty continues to represent approximately 40 per cent of the manufacturers' selling price and the consumer persists in buying only in very small quantities. The bulk of the additional profit has probably gone to the distributor, but that a part of it has been retained by the manufacturer is suggested by the returns given on page 154, abstracted from the published accounts of the Bryant & May Co.

The real resources at present employed are probably much larger than those published, having regard, on the one hand, to the greatly increased sums which have been written off and, on the other, to the artificial appreciation arising from the external factor of national monetary

[1] Prospectus, May, 1924, and Report for 1924.
[2] Annual Summary of Trade.
[3] Official statement, 21st May, 1925 (*Financial Times*).
[4] Prospectus, May, 1924.

inflation. The real percentage earnings in recent years would, consequently, appear to be considerably less than is suggested by the accounts, though they have probably been greater than is required to attract new capital into the industry.

To sum up, it is clear that the company, though earning a very high return on its capital, holds no monopoly in the match industry. Probably by agreement with the Swedish Match combine, it could temporarily charge unreasonable prices. Competition, however, would quickly provide a corrective.

Year	Resources Employed	Return Thereon*	Ratio	Depreciation
	£	£	%	£
1911–12	1,445,000	152,000	10·5	25,000
1912–13	1,456,000	124,000	8·5	25,000
1913–14	1,390,000	134,000	9·6	25,000
1921–22	2,040,000	263,000	12·9	25,000
1922–23	2,086,000	368,000	17·6	50,000
1923–24	2,683,000	390,000	14·5	50,000
1924–25	2,743,000	491,000	18·0	100,000
1925–26	2,878,000	479,000	16·6	100,000

* Subject to depreciation.

CHAPTER XVIII

THE WALL-PAPER COMBINE

THE wall-paper industry is one in which individual specialization rather than mass-production is applicable. It is, perhaps, for this reason that the number of nominally separate works is very high in proportion to the capital employed in the industry. Yet, though there are relatively many works, each retaining its individual name, they are, with few exceptions, all owned or controlled by a single combine—the Wall-paper Manufacturers. Probably the fact that the industry is concentrated in a small area in Lancashire has had much to do with the progress of combination. It is likely, too, that the individual firms which constitute the combine were impressed by the possibilities of administrative economies. But their primary purpose would appear to have been nothing more than the suppression of competition.

The combine dates from the end of the last century, when it was formed as an amalgamation of no less than twenty-seven rival concerns, the purchase consideration being £4,216,000. It absorbed nine other firms in 1915, and to-day controls probably over 90 per cent of the industry. Moreover, it binds the merchants by an agreement whereby the latter, in return for a bonus, are compelled to observe a fixed minimum price and to stock no wall-paper made by outside firms. Violation of this agreement may involve heavy penalties and the withdrawal of supplies.[1] Clearly, the combine, while it has to bear in mind the indirect competition of substitutes, such as distemper, has the power to regulate prices within fairly wide limits. Has this power been abused? Its accounts

[1] The *Statist*, 27th October, 1923.

may, first, be examined. The published results, subject to tax, are as follows—

Year to 31st August	Resources Employed	Earned Thereon	Ratio	Tax
	£	£	%	£
1910	4,605,000	202,000	4·4	4,000
1911	4,615,000	210,000	4·6	3,000
1912	4,679,000	191,000	4·1	3,000
1913	4,723,000	190,000	4·0	4,000
1922	5,289,000	702,000	13·3	28,000
1923	5,610,000	636,000	11·3	8,000
1924	5,818,000	726,000	12·5	15,000
1925	6,062,000	733,000	12·1	36,000
1926	6,302,000	649,000	10·3	34,000

The above figures show that the profits in proportion to the nominal resources employed are, at present, about three times the competitive pre-war average, and are considerably higher than the customary industrial yields. It must be allowed, first, that the company is more efficient than in pre-war years; secondly, that trade conditions have considerably improved; and, thirdly, that the assets are for the most part entered at valuations which take no account of the great change brought about by national monetary inflation. But it would still appear that prices are "excessive," in the sense that they afford a higher return than may be considered necessary to justify new investment in the industry. Of course, it must be remembered that this is true only of a short period, for if the return were averaged over the twenty-five years of the company's existence, it would be found to have been very moderate indeed. And though present prices may be "excessive" in the commonly accepted sense, they are clearly not excessive in the sense that they are above the world level, for exports are far in excess of imports, and the latter are no greater than in pre-war years.[1] It is, moreover, significant of the company's powerlessness in

[1] Annual Summary of Trade.

times of acute crisis that it suffered a trading loss of nearly £900,000 during the depression of 1920–1921.[1]

It may be affirmed that, while the company controls the vast bulk of the wall-paper trade, it holds no monopoly. Owing partly to adventitious circumstances, it is at present earning very high profits, but its ability to maintain its prosperity at this level is rendered uncertain by the absence of restriction on imports and by the ease with which new capital can be invested in the industry or in rival trades.

[1] The *Statist*, 27th October, 1923.

CHAPTER XIX

THE OIL COMBINES

THE oil industry is pre-eminently the sphere of large-scale organization. It resembles other recently developed mining industries in that it is essentially international in character and ownership, but it differs in that all the various stages of manipulation, from the extraction of the raw material to the retail distribution of the finished product in markets thousands of miles from the source of supply, are controlled by the principal producers themselves.

Originally, the industry was practically confined to the United States. That country, however, while still controlling the bulk of the output, no longer holds a monopoly, being challenged by the Dutch East Indies, Persia, Mexico, Trinidad, Venezuela, and many other countries. England, though controlling a large proportion of the industry, does not produce oil in large quantities within her own boundaries, such domestic exploitation as there is being, in fact, largely restricted to by-product benzol, a substitute for petrol. In studying the question of combination, therefore, account has to be taken not only of internal distribution—though that is the more immediate aspect—but of competitive production over a world-wide area.

The internal trade is handled mainly by four firms—namely, the Royal Dutch-Shell combine, the Anglo-American Oil Co., the Anglo-Persian Oil Co., and the National Benzol Co. The Royal-Dutch-Shell group is 60 per cent Dutch and 40 per cent English, the Anglo-American is an associate of the Standard Oil Co. of the United States; while the Anglo-Persian is purely English, its ordinary capital being held mainly by the Government, which has, however, no voice in the management except on matters of "high general policy." It is estimated that of the total

inland sales of motor spirit, the Royal Dutch-Shell group controls about 32 per cent, the Anglo-American 30 per cent, and the Anglo-Persian 23 per cent; that is to say, the three together control approximately 85 per cent. They possess, moreover, gigantic resources, the net assets of the Royal Dutch-Shell being about £70,000,000; of the Standard Oil Co., £150,000,000; of the Anglo-American, £7,000,000; and of the Anglo-Persian, £34,000,000. Clearly, this is a threatening position. Yet it does not appear that the consumer need be seriously alarmed. The three groups have, it is true, an "understanding" as to prices in the English market,[1] but it is of a very loose character, and it can hardly be said to interfere materially with economic laws. And even if the understanding took the form of a rigid agreement, cemented by an exchange of shares, a monopolist price policy would still be quite infeasible, for the reason that, while the three groups may control 85 per cent of the English trade, they control (treating the Anglo-American as a branch of the Standard Oil Group) less than 30 per cent[2] of the world production, a production which is, moreover, essentially for export and not for domestic consumption. And as there are almost unlimited reserves of oil, apart from the huge supplies held speculatively in storage, it is certain that manipulation would quickly result in a loss of trade to the groups. The course of the oil market in 1920–1921 clearly demonstrated the utter inability of the big groups to prevent prices from falling even to uneconomic levels. Subsequent events have likewise shown how great is the stimulus to competition afforded by a slight upward trend in prices.

The industry is, after all, still largely in its infancy, being barely sixty years old, and the undeveloped areas of oil-bearing land are so vast that a combination of even all the existing producers would not constitute a monopoly.

[1] Report on Motor Fuel (Cmd. 597), 1920, page 7; and *Statist*, 22nd December, 1923.

[2] *Economics of the Oil Industry* (Sir Robert Waley Cohen), 1924, page 15.

The economics of the industry and not monopolistic designs explain the growth of the giant combinations that exist to-day. But clearly there is a limit to their size, and that limit will probably be reached long before demand ceases to expand. Indeed, the tendency towards concentration, which was so marked before the war, appears to be already declining, if it has not actually been reversed. It may, in conclusion, be said that the groups have followed a moderate price policy. Outwardly, they might seem to have little difficulty in charging excessive prices on the English market. Actually, however, they appear to have served the consumer more cheaply than if distribution were in the hands of small undertakings. They owe their predominance primarily to the fact that their prices are low and they can maintain it only on that condition.

CHAPTER XX

THE TYRE COMBINE

In the tyre trade, monopoly is prevented by circumstances similar to those which are to be found in other industries. One concern—the Dunlop Rubber Co.—produces over 90 per cent of the total national production.[1] It owns, moreover, very extensive factories in the United States, France, and Germany; and produces a large part of its own requirements of raw rubber, cotton fabric, rims, and wheels.[2] Its domestic rivals are small and of inferior competitive power. Yet for all its strength, it is very far from possessing a monopoly. It controls, in fact, hardly 60 per cent of the total inland sales, a large part of the trade being in the hands of powerful American and continental exporters. Its 60 per cent share may still appear to give the company predominance, yet it must be recognized that the proportion, being maintained only by the observance of competitive prices, would very quickly decline if that policy were discontinued. The cost of freight affords very little shelter, the value of the product being relatively high. Some measure of indirect protection is, it is true, conferred by the tariff of 33⅓ per cent on foreign vehicles, the use of which, despite standardization, often implies the use of foreign tyres. The imports of cars are, however, still exceedingly large.

The record of the company shows how important is foreign competition and, incidentally, how serious may be the consequences of errors in judgment when decisions rest with one predominant undertaking and not with many rival enterprises. In 1920–1921, a loss of £8,320,000—wiping out all the profits earned in the previous twenty-five years of the company's history—arose, largely as a

[1] Prospectus, 12th December, 1925. [2] *Ibid.*

result of the ill-advised forward buying of raw materials on the eve of the trade depression.[1] The loss would no doubt have been much smaller if the company—like Coats in the thread trade—had been able to maintain prices, but it was quite powerless to do so, its markets being almost at once swamped with foreign products. In the result, a deficiency estimated at £12,582,800[2] had to be written off in 1924, the share capital being reduced for this purpose from £19,890,600 to £9,363,800. Since then the company, in consequence of the reorganization of its management, and more particularly because of the remarkable revival in the tyre trade, has become highly prosperous, its profit in 1925 being £2,896,000, or, roughly, 30 per cent on the reduced valuation of the resources employed.

The company has gained its present predominance in the pneumatic tyre trade not by a policy of amalgamation, but by a rapid process of internal development. On the other hand, it owes its position in the solid-tyre industry and general rubber goods trade very largely to the acquisition of the Macintosh group of companies, which were purchased in 1925 at a cost of about £2,000,000. The suppression of domestic rivalry in the solid tyre trade is an important development in view of the relative feebleness of foreign competition in that industry.

To sum up, the vast bulk of the domestic tyre industry is concentrated in the hands of a single company, possessing all the advantages of large-scale production. Many of the factors which give that undertaking predominance and make difficult the formation of new enterprises have, however, combined to accentuate international competition, thus depriving it, at any rate in the pneumatic tyre section, of the power to exploit the consumer.

[1] Annual Report, 1920–21. [2] *Statist*, 20th September, 1924.

CHAPTER XXI

THE RUBBER STABILIZATION PLAN

THE question of the regulation of competition in the rubber industry may not appear to fall within the scope of an inquiry into the trust movement in England. Actually, however, it has a vital bearing on this subject, in that it admits the principle of Government co-operation in the suppression of excessive competition. The case of rubber restriction by Government edict has, in fact, such far-reaching implications that it may well be examined in its more important aspects.

It may, first, be explained that the rubber industry—which is practically confined to the Middle East—was acutely affected by the post-war depression. The position in 1922 was that the various planters, while not actually faced with disaster, as was commonly alleged, had little prospect of earning profits for many years. Demand, it is true, was steadily increasing, but it was still far below productive capacity, and the market was glutted with stocks. It was felt, in these circumstances, that, since voluntary restriction had failed to receive due support among the many hundreds of European and native producers, nothing could save the situation except Government intervention. There was the difficulty that, while British Malaya and Ceylon, which together produced 73 per cent of the total output, were quite prepared to introduce compulsory restriction (as advocated by the Home Government), the Dutch Indies, which produced 25 per cent, would have nothing to do with the scheme. Their abstention was, at first, considered to make the plan quite infeasible,[1] but this view was for minor reasons suddenly

[1] Report on Rubber Situation in British Colonies and Protectorates (Cmd. 1678, page 8).

withdrawn;[1] and the scheme was put into force in Malaya and Ceylon on 1st November, 1922, the English producers in Dutch territory agreeing voluntarily to observe the set scale of restriction. For the purpose of the scheme, each company was given as a "standard" production its output in the year 1919–1920, and was compelled to restrict exports to a fixed percentage of that quantity, the initial allowance being 60 per cent. It was provided that the percentage should vary automatically with quarterly fluctuations in the average price of the commodity above or below a "pivotal" price of 1s. 3d.[2] This price, which was about twice that actually ruling before the scheme had been decided on, was considered sufficient to afford the producers a reasonable profit and at the same time to impose no burden on the consumers. It was, however, increased early in 1926 to 1s. 9d., for reasons which the Government did not disclose.

Such is the Restriction Scheme in brief, and it may be said at once that, though cumbersome, it has been fair in conception and successful in its working. It is true that prices have not been "stabilized," as had been hoped; they have, on the contrary, fluctuated violently, having touched 9½d. in 1924, and 4s. 8d. in 1925, during which years the quarterly exportable allowance ranged from 50 per cent to 75 per cent. The full standard production was allowed during the early part of 1926, but a restriction of 20 per cent was later reimposed in consequence of the fall in prices below the new pivotal level.

The operation of the scheme is instructive in certain respects. It has shown, first of all, that one effect of the restriction on Imperial territory has been greatly to stimulate production in other areas. In fact, the world output increased, in spite of restriction, from about 400,000 tons in 1922 to 500,000 tons in 1925, while the proportion produced by the English companies fell from about 73 per cent

[1] Supplementary Report (Cmd. 1756, page 4).
[2] *Vide* Report on Rubber Situation (Cmd. 1678), 1922, page 8.

to 50 per cent. Consumption during the same period far outstripped current production, rising from about 400,000 to 560,000 tons. It might be argued from these figures that restriction was not necessary, or that if it was, it worked to the loss of the English producers and the profit of their competitors. This does not, however, appear to be entirely the case. In the first place, it must be remembered that when the scheme was introduced, there was a very heavy glut of stocks, the total quantity on hand being about 310,000 tons.[1] This would have had to be liquidated before there could have been any sustained recovery in price, the more so as manufacturers adopted the policy of buying from hand to mouth. In the second place, if the English companies had not restricted, the aggregate production would have continued to keep ahead of demand, though, of course, not to the extent that might be suggested by the increase in the production of the Dutch plantations. It must, however, be admitted that the latter benefited as a result of the restriction of English production, though this should not be taken to mean that the curtailment of supplies in the general interest of the industry was unwise.

The restriction scheme may be criticized on the ground that restriction is ethically wrong, and that Government at any rate should have nothing to do with it. There is force in this latter objection, particularly in the case of a product which is chiefly used, not by nationals, but by foreign manufacturers. The United States, which consumes about 75 per cent of the total output of rubber, did, in fact, lodge a diplomatic protest against the scheme in 1925, and threatened reprisals. This incident is instructive, though it so happens that America has no real ground for complaint on the matter. Nor is it probable that any complaint would have been made were it not for the fact that the tyre industry in the United States is controlled by a handful of vocal and, politically, very powerful manufacturers. The result of the agitation has, however, been

[1] *Ibid.*, page 4.

harmful, and has led the House of Representatives at Washington to pass the following extraordinary resolution :[1] " Whereas the production and supply of rubber for the United States is artificially controlled, and the price dictated by a monopoly created and operating beyond our borders, and upon this monopolistic control the price has reached an excessive figure wholly unjustified by the economic situation or the normal laws of supply and demand ; and whereas a continuance of this situation seriously threatens the well-being of the American people ; *Resolved*, that the Committee on Interstate and Foreign Commerce be and is hereby authorized and empowered to investigate, by sub-committee or otherwise, the means and methods of the control and exportation of crude rubber, and its effects upon the commerce of the United States, both as to supply and to price, and to report to the House its findings and recommendations thereon."

The English producers are credited with possessing a monopoly. But they have realized—very much to their sorrow—that that is quite untrue. And even if it were true, the " monopoly " would be meaningless, first, because the producers are all independent of one another ; and, secondly, because maximum production is ensured by law as long as the price of rubber remains at the pivotal " fair " level defined by the restriction scheme. The machinery of the scheme, as our Government found itself obliged to emphasize in Washington,[2] is absolutely automatic ; and since price on the consuming markets provides the only method whereby the scheme works, its operation is placed not in the hands either of growers or Government, but in the hands of the consumers. It so happened that prices did reach grossly extravagant heights in 1925, but taken over the whole period since 1920 they have been well below what the United States Government had itself defined to be a fair price.

[1] *Vide* the *Statist*, 9th January, 1926, page 57.
[2] *Times*, 25th January, 1926, page 14.

CHAPTER XXII

SHIPPING COMBINES

SHIPPING is governed by two factors which make it peculiarly vulnerable to competition. In the first place, it is almost wholly international, which implies not only that all nations have equal rights over every trade route, but that ships can be transferred from one to the other of any two widely separated routes. In the second place, expenses vary very little with the volume of business, so that in the event of a shortage of cargo, it would pay to carry, for a mere fraction of the normal charge, freight which could not otherwise be obtained. The tendency for competition to become excessive is, consequently, much greater than in other industries. This danger has, however, been avoided to a large extent, partly by the amalgamation of competing fleets and partly by means of the " conference " system.

The movement towards amalgamation may, first, be noted. It has been widespread among English lines, particularly since 1913. Indeed, more than half of England's shipping—which represents about one-third of the world total—is now controlled by six groups—namely, the Peninsular and Oriental, the Royal Mail Steam Packet, the Cunard, Furness Withy, Ellerman Lines, and Alfred Holt.[1] They have reached their present position almost entirely by amalgamation, involving the absorption of over fifty competing companies. They are each largely identified with separate spheres, and do not, therefore, compete directly with one another. There is, for instance, no direct rivalry between the Peninsular and Oriental, which trades with the East, and the Royal Mail, which trades with South America and South Africa. Nor is it likely that any of the companies would, unless hard pressed, transfer

[1] The *Statist*, 12th January, 1924.

its ships from one route to another, for large liners (which compose the vast bulk of the fleets) are often specially built for particular routes, and it is an unwritten law, at least among English companies, that no line shall intrude into another's sphere.

If the companies had only the rivalry of their own nationals to meet, they could, at any rate in the passenger trade, regulate competition fairly effectively. But with the possible exception of the Peninsular and Oriental, whose greatest rival (Alfred Holt) is English, foreign competition is very considerable, though much less than is suggested by the fact that England owns only one-third of the world tonnage. Accordingly, since amalgamation between English and foreign lines is opposed both by the individual companies and their respective Governments, competition can only be effectively regulated by international agreement, that is, by the so-called conference system.

Shipping Conferences

A shipping conference may be defined as an alliance of regular steamship lines for the purpose of restricting competition on certain specified routes. Its first object—that of suppressing rivalry between its members—is achieved by fixing uniform rates, with a provision in certain cases for the apportionment of traffic either by restriction in the number of sailings on the part of each line, or by a division of the ports of sailing, or by pooling some part of the freight upon all or upon certain portions of the cargo.[1] The second object of the conference—that of protecting its members against "outsiders"—is achieved by means of the deferred rebate system, which "binds the shipper to the conference lines by making the receipt of a sum of money in the form of a rebate of freight contingent upon absolute loyalty to the conference so far as shipments within the area of the conference are concerned."[2] The

[1] Report on Shipping Rings (Cmd. 4668), 1909, page 9.
[2] *Ibid.*

shipper is not bound to send his goods by the conference lines; but, because of the deferring of payments, there is (unless he chooses to cease shipping altogether for a considerable period) no day in the year on which he is free to ship by "outside" vessels save by foregoing his rebates. The "cardinal principle of the rebate system is that the shipper who, during a particular period, ceases to confine his shipments exclusively to the conference, loses his right to the rebate not only in respect of goods shipped during that period, but also in respect of goods shipped during the previous period."[1]

Such is the rebate system in its essence, and in principle at least there is nothing very objectionable about it. It has, in fact, been admitted to be necessary where a regular and organized service is required,[2] for only thereby can the regular lines be safeguarded against the intermittent and irresponsible competition of those which offer only irregular shipping facilities and choose their routes according to the relative rates of freight.

It remains to examine the actual application of the conference system. It was first instituted in 1875, and in the succeeding twenty years was applied to practically all the chief outward trades from England in which the character of the trade was such as to demand an organized and regular service of high-class steamers. The conference soon came to embrace foreign lines, and was extended so as to include the homeward trades. In the latter case, however, deferred rebates were in many cases not imposed for the reason that homeward cargoes were usually in excess of the carrying capacity of the conference lines, and consisted, moreover, of commodities specially suitable for shipment in bulk by tramp steamers. In the North Atlantic and coasting trades, too, the conference lines, while attempting to regulate rates, did not impose the deferred rebate system, because in the one case the interest

[1] Report on Shipping Rings (Cmd. 4668), 1909, page 10.
[2] *Ibid.*, page 78.

of the passenger trade was so predominant as by itself to ensure regularity of service ; and in the other case because the necessary guarantee of custom could be otherwise obtained.[1]

The conferences are still to be found on almost every important route. Their power is, however, greatly restricted by a number of factors, some of which are entirely new. In the first place, the world's tonnage, in consequence of additions made during the war and post-war periods, is greatly in excess of requirements. The idle tonnage exceeds 5,000,000 tons, while many of the ships actually in commission are only partially employed. This redundance of carrying capacity will eventually disappear, but in the meantime will continue to exercise a very depressing influence on freights. In the second place, it has to be noted that the bond between the members of the conference is not rigid. On certain routes, particularly in the Atlantic services, it is, in fact, very loose, and in no case does it preclude competition in the provision of facilities[2]—which is often a very real form of rivalry even in the comparatively sheltered Eastern trades. In the third place, there is always actual or potential " outside " competition, despite the protection afforded by the deferred rebate system. In some cases, competition takes the form of " tramp " rivalry, which is felt not only in bulk cargo traffic, but in parcels and berth business, to which latter traffic the deferred rebate system is usually confined. In other cases, competition may take the form of a direct assault by line-ship companies. There have been many cases in which such attacks have been completely successful,[3] in spite of the deferred rebate system ; and though it has usually happened that the successful raiders have later joined the ring themselves, the effect of the lesson has always been salutary. The danger seldom comes from lines which are

[1] *Ibid.*, page 76.
[2] *Ibid.*, page 77.
[3] Report on Deferred Rebate System (Cmd. 1802), 1923, page 19.

already members of a rival conference in the same area, or of a different conference in another area, for there is, as a rule, a feeling of fellowship between all conferences. The danger comes instead from new lines, and it has in recent years been greatly accentuated by the rise of huge Government-owned or subsidised lines, which are forbidden by law from participation in conferences and are, in fact, often aimed directly at them.[1] Finally, account has to be taken of hostile legislation and of defensive alliances among traders. In several countries, the deferred rebate system has been made definitely illegal, at least in the outward trades; and the Imperial Government has itself laid down, with the consent of the conferences, that shippers are to be given a running option of (*a*) remaining under the deferred rebate system, or (*b*) of adopting an alternative agreement whereby they are released from the continuous "tie" implied by the rebate system, while binding themselves as before to give their entire support to the conference lines for an agreed period and on agreed conditions.[2] Both systems may operate simultaneously, but all shippers are held either by one or the other. There are equal penalties for violation of contract by either party, the shipper who adopts the new agreement and fails to observe it being bound to pay as liquidated damages an amount equal to the accumulated rebates which he would have had to sacrifice under the deferred rebate system.

As regards defensive alliances among traders, the formation of which was strongly advocated by the Royal Commission of 1909 and the Imperial Shipping Committee in 1923,[3] it has to be admitted that the protection here afforded is not very great, for the reason that the representative bodies are not numerous. Those which do exist, however, act as a definite curb on the conferences, and their influence appears to be increasing.

[1] The *Statist*, 19th January, 1924, page 79.
[2] Report on the Rebate System (Cmd. 1802), 1923, page 22.
[3] *Ibid.*, page 23.

It is not difficult to establish the seriousness of the limitations mentioned above. There is, first, the fact that since the trade depression, or rather since the great accumulation of new tonnage, freight rates have fallen precipitately, being in 1925 barely a quarter of what they were in 1920.[1] There is, secondly, the evidence of the published results of the conference lines. Those for the three leading groups are as follows—

Year	Peninsular and Oriental			Cunard			Royal Mail		
	Resources Employed	Return Thereon		Resources Employed	Return Thereon		Resources Employed	Return Thereon	
	£	£	%	£	£	%	£	£	%
1919–20	12,885,000	710,000	5·5	10,260,000	594,000	5·8	13,541,000	922,000	6·8
1920–21	13,348,000	624,000	4·7	13,155,000	778,000	5·9	13,861,000	615,000	4·4
1921–22	13,828,000	697,000	5·0	13,186,000	756,000	5·7	13,922,000	708,000	5·1
1922–23	17,784,000	1,013,000	5·7	12,981,000	749,000	5·8	16,122,000	757,000	4·7
1923–24	17,836,000	1,347,000	7·6	12,885,000	748,000	5·8	16,208,000	761,000	4·7
1924–25	21,728,000	1,274,000	5·9	12,791,000	629,000	4·9	16,258,000	706,000	4·3

In connection with the above figures, it must be remembered that the resources employed do not include secret reserves, which, in each case, are believed to be very large; nor do the disclosed earnings take account of the difference that may exist between the profits earned and the profits distributed by subsidiary companies (investments in which constitute the bulk of the assets). Clearly, however, the figures, though only approximate, afford clear evidence that over the period dealt with—which was admittedly one of acute depression—the companies have earned much less than a reasonable return on capital. Other lines have fared still worse; indeed, the great American and Australian Government-owned fleets, which had set out to teach the conferences how shipping should really be conducted, have lost most of their capital.

It may be concluded, then, although an intricate system of association, aided by widespread amalgamation, exists

[1] *Vide* the *Statist*, 23rd January, 1926.

in the shipping industry, factors sometimes inherent in the very conferences themselves, but more often external, preclude the maintenance of rates on a monopoly basis, or, during periods of depression, at a level which affords more than the barest subsistence to the companies.

CHAPTER XXIII

RAILWAY COMBINES

The fact that the State has itself suppressed competition among the railway companies, and has at the same time imposed specific limitations on their earnings, may suggest that combination in this sphere of industrial activity does not come within the scope of an inquiry into the trust movement. In fact, however, the history of railway amalgamation is highly instructive in this connection.

It must, first, be observed that the compulsory fusion of the railways in 1922 into four single undertakings was merely in anticipation of what appeared to be an inevitable, though gradual, process of evolution. Indeed, long before the State interfered, competition had, to a large extent, been suppressed by the companies themselves. It has, secondly, to be observed that the State, in adopting the view that unification was desirable, renounced its traditional attitude of hostility, but only on the condition that the fruits of monopoly should accrue not to the companies, but to the community.

From the outset, physical and economic conditions favoured, if they did not actually necessitate, combination. It is true that the companies were originally intended to be merely the owners of the way, receiving tolls for the use of it from a multiplicity of small private carriers, each possessing his own rolling-stock.[1] But this system was at once found to be both unpracticable and highly undesirable, so that each railway company assumed a monopoly of traffic over its own lines. And as the competition of rival companies was greatly intensified by the fact that, as in the case of shipping transport, costs necessarily varied very little with the volume of traffic, the result was an

[1] Report on Railway Amalgamations (32), 1872, page 1.

early and widespread tendency towards amalgamation and association. Thus between 1840 and 1870 the number of separate railways had been reduced from over 1,100 to about 130, and among these competition had largely ceased in regard to the provision of facilities.[1] The movement continued, though on a much smaller scale, right up to 1914, by which time the fourteen great groups that then dominated the industry had become closely associated by working agreements and tacit understandings.[2]

Such was the position at the outbreak of war. The imposition of State control during hostilities, accompanied as it was by the technical amalgamation of all the railways under one management, was primarily responsible for the subsequent grouping under the Railways Act of 1921. It was argued that war conditions, involving the complete elimination of competition, the diversion of traffic along unaccustomed routes, and the consequent disturbance of the respective goodwills of the various companies, created difficulties which could be solved only by some continued process of combination.[3] Perhaps the results of unified management during the war had justified, too, the previously expressed official opinion that the growth of co-operation and the more complete elimination of competition was to the advantage of both the public and the railways.[4] At any rate, there is to-day the accomplished fact that practically the whole railway system is owned by four companies—the London Midland and Scottish, the London and North Eastern, the Great Western, and the Southern. The amalgamations, involving in all about 120 concerns, with net capital resources of over £1,000,000,000, have been so designed as to give each company within its own sphere a good deal of autonomy, while at the same time affording room for healthy competition in certain directions. Apart from rivalry in the provision of facilities, there is, however,

[1] Report on Railway Amalgamations (32), 1872, page 29.
[2] *Vide* the *Statist*, 23rd February, 1924.
[3] Report of Select Committee, 1918.
[4] Report on Railway Agreements (Cmd. 5631), 1911, page 19.

practically no real competition. The companies are, it is true, forbidden to make any agreement "for the allocation of traffic or the pooling of receipts, or otherwise for effecting any combination which would contravene the purposes of the Railways Act."[1] But the companies can, as in the past, eliminate competition by means of "understandings," which are not agreements in any technical sense and have no legal status.

The suppression of competition does not, however, mean that the companies can pursue a monopolist policy, for their charges are fixed not by themselves, but by a public body (the Railway Rates Tribunal). Those charges are, in the first instance, to be such as will yield an annual net income equivalent to the aggregate for 1913 (plus certain allowances for capital outlay since that year). If this standard be exceeded, charges have to be reduced by an amount equal to 80 per cent of the excess.[2] The remaining 20 per cent goes to the company, and is added to form an "increased standard" and so on, as long as a surplus is shown, the object of this provision being to guard against that lack of progress which monopoly almost always implies. If, on the other hand, earnings fall short of the standard, it is laid down that charges are to be so adjusted as to make good the deficiency, provided that the latter had not been due to "lack of efficiency or of economy in management."

The scheme is clearly designed to safeguard the public interest. There is, in the first place, a limitation of profits to a standard which may be considered lower than that which the companies might otherwise reasonably demand, having regard to the reduced purchasing power of money. There is, secondly, the elimination of many "informal combinations which, while likely to be of less advantage to the companies than more formal and complete unions, can destroy competition just as effectively, and, moreover, possess certain incidental disadvantages from the public

[1] The Railways Act, 1921. [2] *Ibid.*

point of view, from which a monopoly under a single control is free."[1] There is, finally, the physical economy rendered possible by amalgamation, an economy which is, it is true, being but very slowly realized. The main objection that may be urged against the scheme is that the guarantee of a minimum profit, though conditional on "efficient and economical working and management," may, nevertheless, discourage progress, since no outside tribunal can easily determine efficiency or the absence of it. This danger certainly exists, but in the light of previous investigations, it is impossible to see what more suitable basis of settlement than that adopted could have been found for a "trust" problem of such magnitude. Meanwhile, it has to be observed that in consequence of delay in the solution of the highly complex questions of what constitute the actual "standard" revenues and what are the rates necessary to yield them, the companies have, with one exception, been earning for some time past much less than they are legally entitled to, as the following comparison shows[2]—

Railway Company	Standard Revenue	Actual Revenue, 1925
	£	£
London Midland and Scottish . .	19,991,000	18,002,000
London and North Eastern . .	14,603,000	10,129,000
Great Western	8,133,000	7,108,000
Southern	6,332,000	6,416,000

[1] Report on Railway Agreements (Cmd. 5631), 1911, page 18.
[2] *Statist*, 13th November, 1926, page 904.

CHAPTER XXIV

BANKING COMBINES

It is natural that the growth and consolidation of industrial undertakings should have necessitated a corresponding movement in the banking world. There have, however, been other and more important reasons for this latter development. One is that banking business is largely routine and, therefore, admirably adapted for unification of management. Another reason is that each organization has to be widespread, necessitating command of resources far beyond those of ordinary industrial undertakings. But perhaps the main reason is that the nature of banking is such that greatness of size—at any rate up to a certain point—is essential for stability; and stability is, of course, of primary importance in a business depending so much on public confidence.

The combination of all these factors explains the present-day concentration in banking. The movement began about 1880, and was marked by two related tendencies—one being amalgamation, the other the establishment of a network of branches by the leading banks. In the result, hundreds of firms lost their identity and control passed more and more into the hands of five great groups—namely, the Midland Bank, Lloyds, Barclays, the National Provincial, and the Westminster. The magnitude of the movement is brought out by the following figures—

31st Dec.	Gross Assets of Home Banks*	Proportion Controlled by "Big Five"	Ratio	Net Assets of Home Banks	Proportion Controlled by "Big Five"	Ratio
	£	£	%	£	£	%
1900	881,064,000	247,932,000	28·1	104,724,000	22,932,000	21·9
1913	1,210,747,000	456,211,000	37·7	113,052,000	33,806,000	29·9
1923	2,477,448,000	1,967,548,000	79·4	144,568,000	108,464,000	75·0
1925	2,466,152,000	1,959,688,000	79·4	150,120,000	112,854,000	75·2

* Excluding assets held by the Bank of England and by Irish Free State banks.

Taking the gross figures, which, though representing merely the balance sheet totals of the various companies, afford a more reliable index than can be obtained from a comparison of net assets, it will be seen that the five leading banks control about 80 per cent of the total resources held. The proportion in the case of the individual items varies, being about 83 per cent for bills discounted, 82 per cent for advances, 78 per cent for cash, 76 per cent for acceptances, and 75 per cent for investments. The outside banks number about twenty-six and, while very soundly established, are in most cases relatively small, their combined gross resources being, in fact, less than those of the Midland Bank alone.

The "Big Five," though varying in size, are of almost equal fighting strength, so that a combination of all of them would be needed before anything approaching even a quasi-monopoly could be established. As it is, keen rivalry exists between them—keener in certain directions, perhaps, than is desirable in the interests of economy. This is particularly noticeable in the case of branch extensions, for such is their mutual jealousy that one bank no sooner enters an obscure locality, than it is followed and challenged by its rivals. The result is that there are, to-day, probably far more branches than are economically justifiable.[1]

Their contrast in this respect with the conditions which originally prevailed has been well expressed by the Chairman of the Westminster Bank:[2] "In the days of private banking there was a sort of courteous convention, by which each local bank, except in the larger towns, was allowed its own district within which the irruption of a rival was regarded as something like poaching. These times have passed away, and the village must indeed be a small one in which there are not at least three offices of the large banks in direct competition. I do not complain of this;

[1] *Vide* the *Statist*, 10th May, 1924.
[2] *The Times*, 30th January, 1925.

it is very much to the benefit of the commercial community. The only persons who have any right to complain are the shareholders, whose profits are devoted in some measure at least to the opening of fresh branches which take a long time before they can pay their way, and in some cases, one may fear, are not likely ever to pay at all. Before the war, a new branch, if established in a growing region, should pay its way after some three or five years of existence. Now, owing to the rise in overhead expenses on the one hand and the severe cutting of profits on the other, that period is about doubled."

In actual finance, competition is necessarily more restrained than in the provision of branch offices. The main functions of the banks, apart from ordinary deposit business, which is the basis of all, are, of course, investment, lending, discounting, accepting, and foreign exchange dealing. As regards the two latter functions (which are new, having been taken on partly because of the competition in the provision of facilities, and partly by reason of the exclusion of German and Austrian firms after the outbreak of war), the "Big Five" do proportionately far more than the other English banks. They have, however, to compete with the foreign banks in the case of exchange dealings; while as regards acceptance business (which has reference almost entirely to international trade) there is not only the rivalry of foreign banks, but the active competition of specialist firms. The latter are not banks in the ordinary sense, but they transact the vast bulk of commercial business and leave inter-bank acceptance business to those to whom it naturally belongs.

It is much the same with discounting. Specialist firms still retain by far the greater part of the business in ordinary trade bills, and leave to the banks the discounting of most of the Government bills. In tendering for such bills, the "Big Five" might, by collusion, temporarily affect rates, but outside competition would very soon supply a corrective.

In deposit business—which is the mainspring of banking, since in a sense banks live on other people's money—the suppression of competition would be equally difficult. Between the "Big Five" there seems, it is true, to be a tacit understanding as to interest allowances, which vary automatically with changes in Bank of England rate. But the competition of the foreign banks makes the margin very narrow and difficult to maintain; while in certain circumstances, such as in competing for the custom of very large enterprises, even the "Big Five" do not themselves always observe it.

In loan business, the "Big Five" are strongest, and it is here that a money trust is considered to be most dangerous, since the restriction of credit at the whim of bankers, or the granting of it on monopoly terms, would be fraught with serious consequences to industry. The natural tendency, however, is for banks to expand credit rather than to restrict it, and the "Big Five" have, in fact, followed this inclination more than their rivals, as their published accounts show. In this, as in all other spheres of banking activity, it must, too, be clearly realized that money is the most fluid of international commodities; and, as recent experience has demonstrated, a slight disparity in rates quickly attracts funds from abroad.

In connection with both deposit business and lending, the following excerpts from a recent work by the Chairman of the Westminster Bank are of interest, as indicating the banking point of view—

"It is worth pointing out that it is only in respect of the rate on London deposits at seven days' notice that there is anything in the nature of an agreement between the banks in restriction of competition."[1] *This agreement, it is contended, "is imposed upon the joint-stock banks by the policy of the Bank of England." There is, it is true, "a general understanding between banks that they will not 'tout' for accounts of other banks, but there is nothing to prevent private*

[1] Walter Leaf, *Banking*, 1926, page 219.

inquiries by customers themselves . . . and a bank which attempted to charge rates which were unduly high would soon find itself losing accounts to its competitors. The rates for loans are, in fact, settled by the ' haggling in the market ' and of a very open market. The same is the case with the rates allowed for deposits."

The profits earned bear out the impression that the great amalgamations which took place during the war period have not restricted competition. Present earnings are, in fact, proportionately much less than in pre-war years. Most of the funds employed represent deposits of customers, that is, borrowed money. But even if such working capital be excluded, as it must be if only for the reason that the aggregate interest allowances are not disclosed, it would still appear that profits, taken either by themselves or in comparison with pre-war years, are moderate. The actual figures, abstracted from the published accounts of the companies, are given on page 183.

The returns reflect the fact that, in spite of all their efficiency, the " Big Five " have not reduced their working costs by amalgamation or by the development of branch banking, but have actually increased them. This is well recognized by the banks themselves, and it may be part of a concerted plan that the opening of new offices is at present proceeding much more slowly and cautiously than in the past. The tendency in the future may, indeed, be to reduce the number of branches rather than to increase them.

A general working agreement between the " Big Five " is a possibility which, though remote, cannot be entirely overlooked. Actual amalgamation, however, is highly improbable, for the Government has frequently intimated that it would not approve of it, and has appointed a permanent committee whose sanction is required for even minor fusions.[1] Nor does it appear that the " Big Five " are themselves in favour of further amalgamation. The

[1] The *Statist*, 10th May, 1924.

chairman of one of the leading institutions has expressed himself on the subject as follows[1]—

"I say most emphatically that, to anything like a financial cartel, a 'money trust,' I am uncompromisingly opposed. It would, I feel sure, lead to disaster, if for no other reason than because it would inevitably end in one great State bank with entire control of all the finance of the country, and I am sure that the experience we have

	Year	Net Resources	Return Thereon	Ratio
		£	£	%
Barclays	1913	5,325,000	738,000	13·9
	1921	24,408,000	2,202,000	9·0
	1922	24,378,000	1,874,000	7·7
	1923	24,343,000	1,891,000	7·8
	1924	24,361,000	2,067,000	8·5
	1925	24,363,000	2,290,000	9·4
Lloyds	1913	7,285,000	1,184,000	16·3
	1921	24,682,000	2,529,000	10·2
	1922	24,919,000	2,069,000	8·3
	1923	24,871,000	2,047,000	8·2
	1924	24,889,000	2,469,000	9·9
	1925	24,889,000	2,569,000	10·3
Midland	1913	8,197,000	1,161,000	14·2
	1921	22,461,000	2,454,000	10·9
	1922	22,499,000	2,253,000	10·0
	1923	22,511,000	2,211,000	9·8
	1924	24,755,000	2,425,000	9·8
	1925	26,144,000	2,522,000	9·6
National Provincial	1913	5,092,000	839,000	16·5
	1921	19,012,000	1,608,000	8·5
	1922	19,077,000	1,463,000	7·6
	1923	19,241,000	1,447,000	7·5
	1924	19,243,000	1,974,000	10·3
	1925	19,871,000	2,162,000	10·9
Westminster	1913	7,907,000	1,152,000	14·6
	1921	17,968,000	2,168,000	12·1
	1922	18,527,000	1,888,000	10·2
	1923	18,544,000	1,805,000	9·7
	1924	18,576,000	2,014,000	10·8
	1925	18,697,000	2,205,000	11·8

[1] *Financial Times*, 12th March, 1918.

had of business management by Government Departments during the last two years is not such as to lead us to look on such enormous interests under the control of an amateur bureaucracy as anything but a national catastrophe. . . . The real danger of a money trust lies, I am sure, in the possibility that one bank might, by extension of its connections, obtain such a position that the facilities it would be able to offer to its customers would inevitably act as a magnet to attract a quite preponderant command of trade finance. . . . Competition between banks must be kept alive and not undermined, and I can assure you that, since I have been concerned with banking, competition between banks has never been so keen as it is to-day."

To sum up, it may be said that while five companies have, by means of the absorption of a vast number of other concerns, assumed control of the great bulk of the banking industry, yet the result has been to intensify competition. The movement has not, however, weakened the credit structure, but has, on the contrary, greatly strengthened it, as witness the comparative ease with which the various companies weathered the unprecedented crises of the war and post-war periods. There is a possibility that the leading banks, while maintaining a separate existence, will tend to co-operate if competition forces down earnings to an unreasonable level ; but anything in the nature of a monopolist policy would be impracticable, even if it were not directly opposed to the interests of the banks themselves.

CHAPTER XXV

THE EFFICIENCY OF THE TRUST

The foregoing survey shows that trusts—which expression is here used in no derogatory sense—have become a common feature of English industry. They are, indeed, so prominent that it may naturally be inquired whether they represent not only the newest, but the most efficient type of business organization.

In examining this question, it is very important to distinguish at the outset between the economies of large-scale organization and the economies peculiar to monopoly or quasi-monopoly. A large business is generally more efficient than a small one, but the question which has to be decided is whether the maximum efficiency can be secured only by a trust. It cannot be denied that unification offers many advantages. The combination of all or most of the firms in an industry might permit, on the manufacturing side, the pooling of technical knowledge; the improvement of plants and their concentration at the most suitable centres; the standardization of types, parts, and patterns; and the specialization by each firm or group of firms in that particular product for which their organization is best adapted. In these respects, the trust can probably achieve more than any other firm. But it has to be clearly recognized that there are only a few industries in which all such economies are practicable; and that while maximum mechanical efficiency can, as a rule, be realized only by very large plants, that dimension can often be attained by firms which are not trusts. In all industries there seems to be a limit to the economies arising from an increase in output, and in very few indeed is the process of production such as to require more than an ordinary degree of specialization or standardization. At

any rate, of the many trusts existing in England, there are only one or two whose economies in this latter respect appear to have been very large.

As regards the purchase of supplies, the trust may find it economical to acquire control of its own raw materials, particularly where these would otherwise have to be obtained through several intermediaries, or are controlled by monopolist organizations. The only trusts which have considered it necessary to adopt this form of integration, however, are the alkali, soap, and tyre combines; and, as recent experience has demonstrated, it is not always the cheapest method of obtaining supplies, nor is it one which only a trust can adopt. The trust may, of course, force down the price of raw materials if the producers are unorganized (as in the case of the Argentine meat trade); but such manipulation cannot be continued indefinitely and, in any case, the profit accrues not only to the trust, but also to its competitors. The trust, if it holds a monopoly, may permanently restrict output; but it is scarcely true to argue that because such a policy means a restriction of demand, the trust can thereby "more or less permanently secure its raw materials more cheaply than would be possible under a state of competition."[1] Bulk purchasing confers advantages, but these do not increase indefinitely and are often offset by serious risks. Several of the leading American trusts have admitted that they could not buy their principal raw materials any cheaper than their competitors.[2] Indeed, the greatest combination of all—the United States Steel Corporation—has found it best to allow each of its constituent firms to purchase its supplies separately.[3]

The risks of centralization in buying, as in other operations, have always been overlooked in discussions on this subject. Yet it should be quite apparent that, assuming a tendency towards error—and such a tendency often

[1] Jones, *Trust Problem in U.S.A.*, 1923, page 500.
[2] *Ibid.*, page 502. [3] *Ibid.*, page 502.

exists—a trust, or, indeed, any large combination of firms, is very likely to fare much worse than if the constituent firms had individually conducted their own purchasing. This is an important consideration, the more so as success in business often depends more on shrewd buying than on anything else. Its practical truth has been frequently demonstrated, and would be still more apparent were it not that its working is obscured where the firms outside the trust are too few to provide a check.

In selling, the trust probably realizes much larger economies than in buying. Under competitive conditions, advertising is sometimes a heavy and wasteful item of cost. The trust, by removing the cause, can alone suppress it. Yet it must be observed, first, that most of the trusts that have been formed deal in products which at no time have been heavily advertised; and, secondly, that where this is not the case, as in the tobacco, whisky, and toilet soap trades, the control is often either so incomplete, or the nature of the demand is so artificial, that the trust has still to spend proportionately as much on advertising as its principal competitors.

Nor does it appear that in regard to its selling staff the trust always works more economically than its rivals. When a combine deals direct with the retail trade or markets a special product, it is usually found, at any rate in the case of the home market, that personal and other factors render it advisable that each of the constituent firms should continue to employ its own travellers. Such, for instance, is the practice of the tobacco and soap trusts. There are, of course, certain quasi-monopoly trades in which separate representation can easily be dispensed with, but it is just in those that selling costs under competitive conditions have always been very small. In the export markets it is probably true that trusts, by reason of their resources, secure trade which individual companies could not obtain, except, perhaps, through some system of co-operation. The development of foreign trade is often

a question of capturing a demand rather than of creating it, but for either purpose the trust which is in secure control of its home market is particularly adapted. It may not, however, have the same stimulus to export as its constituents would have had under competitive conditions. Most of the trusts in England are extensively engaged in overseas trade, but whether the fact that very few of them are shipping proportionately as much as their original constituents is evidence against them, cannot be determined, since comparison is vitiated by the policy of establishing factories abroad, and by the uncertainty as to what would have been the trend of the export trade under competitive conditions.

In discussing the economies of monopoly or quasi-monopoly, it has been assumed that the trusts are under the control of men of a high standard of administrative ability. Some of these economies are, of course, more or less automatically secured, such as, for instance, the suppression of rival advertising. Others can be achieved by men of average ability. But with such men there is a danger that economies in certain directions may be outweighed by losses in others. Consequently, if the trust is to be even as efficient as its rivals, it must have directors of very superior capacity, although this need may not, of course, be so apparent if the outside firms are themselves inefficient or if the trust holds a monopoly. It may be argued that, while any large firm can buy the best plant, only the trust can buy the best brains, and that it will, therefore, be more efficiently managed. But this is to ignore that the difficulties of management in the one case are much greater than in the other. They are often such that the full theoretical economies of monopoly are never realized. Sometimes, indeed, they overwhelm the would-be trust organizers and result in a net loss of efficiency.

The danger that the trust may not find the requisite standard of administrative ability varies with the size and

nature of the undertaking concerned. It tends, perhaps, to decline in most industries, for each new generation, while lacking the training of the hard school of competition and adversity, still benefits greatly by the experience of previous administrators and by the progress of the science of business organization. It is, however, still true that the human factor is a very vulnerable point in the armoury of the trust. Big business, in short, requires "big" men; and unless a mammoth combination has been built up on a very solid basis, it may, after the manner of the Frankenstein fable, devour its creator.

Even where the requisite administrative ability does exist, there is always the danger that the absence or restriction of competition may arrest progress. This is an inherent evil of monopoly, and is the strongest argument that can be advanced against it. Fortunately, it is seldom allowed to develop, first, for the reason that the monopolist concern which ceases to be progressive soon ceases to be monopolistic; and, secondly, because most trusts never have been truly monopolistic, but have always to contend against external competition, actual and potential. This is particularly true of trusts which, as in England, do not work behind tariff barriers.

There remains one other aspect of the question—namely, the danger of over-capitalization—by which term is meant the payment of excessive prices for properties acquired. Where a trust owes its origin, as it nearly always does, to the combination of a large number of firms, it almost invariably pays more for its assets than they are worth, the excess being, of course, all the greater if the amalgamation takes place at a time of abnormal prosperity. Of course, the mere fact that a trust fails to pay satisfactory dividends does not necessarily mean that it has been over-capitalized. Still, there is in almost every case an inherent tendency towards over-capitalization, and the community is saved from the consequences only because of economies or more often because it is found in practice impossible

to charge the extra prices required to afford a satisfactory dividend. Over-capitalization does not, of course, directly impair the efficiency of the trust (it may, in fact, be a stimulus to effort), but it does mean that new capital can only be raised on unfavourable terms—usually by the issue of high interest-bearing debentures, to which extent overhead charges are increased.

The history of combination, both in this country and abroad, provides many instances of trusts which have been defective or, at any rate, no more efficient than their rivals. In the chemical trade, the United Alkali combine was, until recent years, very unsuccessful, the average dividend paid being barely 1 per cent between 1896 and 1913, in which latter year four-fifths of the ordinary capital of £2,825,000 had to be written off as lost.[1] The initial failure of the company was due not so much to defective organization as to the discovery of improved chemical processes by rival firms. These discoveries could, however, have been taken up at an early stage were it not that the company was deficient in vision and financially embarrassed by over-capitalization.

It has been much the same in the case of the British Dyestuffs Corporation. That ambitious war-time flotation originally held 75 per cent of the dye trade, and had at its disposal immense financial resources. Yet it failed to maintain its position against its competitors, and in 1925 had to write off over one-third of its capital of £9,200,000 and return a large part of the balance as being unusable.[2] Defective management, over-capitalization, and excessive standing charges all played a part in the failure of the company.

The Salt Union was still more unfortunate in its early career, for, though it originally held a quasi-monopoly, it lost so much ground to its competitors that for over sixteen years it failed to earn even half its preference

[1] *Statist*, 30th August, 1924, page 303.
[2] *Ibid.*, 21st November, 1925.

dividend, and in 1902 was compelled to write off more than 50 per cent of its share capital.[1] The cause of failure here was partly defective management, but primarily over-capitalization; the discovery of improved alkali processes; and the rise of new competition.

In the textile finishing trades, several examples of early failure are also to be found. The bleaching and calico trusts, for instance, though now prosperous, were for a long time in serious difficulties, having been unable, between 1900 and 1910, to pay an average dividend of more than 3 per cent and 2 per cent respectively.[2] In each case, there was over-capitalization and defective management. The calico printing combine had started with a most unwieldy administrative organization. It had a directing body responsible to the shareholders of 70–80 persons, 120 "vendors" of the forty-six firms forming the combine, each retaining the right to run its works for five years independently of the managing directors, and, finally, a number of managing directors.[3] This system continued for several years, but eventually, in 1909, it was found necessary to centralize control in the hands of a comparatively small number of directors.

The cotton and wool-dyeing combine fared still worse in its early history, its share capital, which had received on an average less than 1 per cent per annum, having to be written down by 75 per cent in 1912. The sewing cotton combine also was originally very unfortunate, and it was only by a most drastic reorganization of its management that success was eventually achieved.

The wall-paper trust, though now very prosperous, was originally heavily burdened with inflated capitalization, being unable to pay any dividend on its ordinary (deferred) shares between 1900 and 1918. During the same period the cement combine made only one small distribution. In its case there was not only over-capitalization, but

[1] *Ibid.*, 30th August, 1924. [2] *Ibid.*
[3] Levy, *Monopoly and Competition*, 1909, page 278.

defective management. The first arose partly from the discovery of a new type of plant, which in a few years rendered the company's works obsolete.[1] The second was due to the absence of direct control and responsibility. The combine set out with an equipment of twelve managing directors, and based its organization on a system of management by committees,[2] the result being divided responsibility, defective co-ordination between the various subsidiaries and excessive administrative costs. This system continued from the formation of the combine in 1900 until the introduction of an entirely new management in 1924. Control was then centralized, and steps were taken to concentrate production in works embodying up-to-date principles of manufacture.

The history of combines which cannot in any sense be considered trusts provides equally striking instances of failure. In the textile industry, for instance, Amalgamated Cotton Mills, Crosses & Winkworth, and Jute Industries—three post-war combinations with an aggregate capital of £15,750,000—have lost much of their resources. In the shipbuilding trade, disaster has befallen the great Northumberland shipbuilding combine ; while in the iron, steel, and engineering industries, Vickers, Harper Bean, United Steel, Bolckow Vaughan, Agricultural Engineers, and other great combinations have become involved in serious trouble. It is true that in all the cases cited the capital losses sustained have been primarily due to the post-war depression, following a period in which national inflation had carried prices (and thereby the purchase consideration of the amalgamated businesses) to grossly extravagant heights. Yet it is undeniable that a very large part of the losses sustained was due, as in the case of the pre-war trusts, to inability to cope with the administrative problems arising from the combination of a large number of separate and often widely different businesses.

One instructive example in this respect is the agricultural

[1] Chairman's speech, annual meeting, 8th April, 1925. [2] *Ibid.*

engineering combine, an amalgamation of fourteen firms. When this company was formed in 1919, it was confidently expected to achieve large economies by mass production, specialization, and centralized management. Control was placed in the hands of a holding corporation, on the board of which a managing director of each of the subsidiaries was represented. Soon after the organization was established, the trade depression occurred, and it was found that "the central agency, which had been established for purchases and sales, was too rigid, tended to destroy the goodwill of the allied concerns, and produced waste instead of those economies which were so confidently anticipated."[1] The result was that, though the central control board of the holding corporation remained, the buying and selling organization was abolished, and each of the subsidiaries attended directly to its own requirements. The failure of the combine does not, of course, mean that centralization is wrong, but it does show that even in the case of a comparatively small combination the requisite administrative ability does not always exist.

An even more lamentable instance of failure is provided by the preserve-making combine, Crosse & Blackwell. That company was formed in 1920 as an amalgamation of seven firms, the fusion of which was expected to yield "very great economies."[2] Actually, it resulted in heavy losses, and in 1924 it was found necessary to write £2,729,000 off the capital of £7,354,000. The cause of the disaster was largely defective management. A committee of inquiry found, in 1924, that there was "serious duplication and overlapping in management; that the benefits which had actually been derived from combination were so few as to be practically non-existent; and, worst of all, that the associated firms had been competing with one another as strenuously as ever." There was, moreover, "an embarrassing surplus of expensively equipped factory accommodation, which affected both the percentage of

[1] *Statist*, 6th January, 1923. [2] Prospectus, 15th March, 1920.

overhead charges and the cost of manufacture." The solution recommended and put into practice was the abolition of the directorate of the subsidiaries and the reorganization of the board of the controlling company.

In the above instance, it was found possible to salve a large part of the wreckage. In the case of the Harper Bean Motor-car combine, however, nearly all the capital of £6,000,000 was lost in a clumsy attempt to work on mass production principles.

Weak management may be intelligible in the case of a newly-established undertaking which is suddenly faced with an acute trade crisis. There are, however, industries in which the management, though experienced and of a high standard, has yet failed when called upon to administer huge consolidations.

One such instance is Vickers. That great undertaking was, during the post-war period, so impressed with the need for diversifying its business, that it acquired, at a cost which increased its capital resources to about £28,400,000, many unrelated firms. It was discovered too late that " the management had not the special experience required to direct and control so large and varied a body of industrial undertakings, particularly during a period of protracted and severe depression."[1] Partly because of this incapacity, it was found necessary to write off capital losses of no less than £12,442,000.[2] The sale of unrelated businesses being a much too expensive proposition, it was recommended instead that the directorate should be reconstituted and that three committees should be established, the first to deal with the " industrial " branches, the second with armaments and shipbuilding, and the third with finance, co-operation between all three being secured by representation on the general board of directors.[3] It remains to be seen whether the requisite talent can be

[1] Report of Committee of Inquiry, 5th December, 1925.
[2] *Statist*, 12th December, 1925.
[3] *Ibid.*

found to enable the undertaking as a whole to work as efficiently as a more moderately-sized firm.

The foregoing examples of industrial failure would appear to justify the conclusion that even where monopoly or combination gives great scope for economy, it does not by any means ensure it. Of course, many of the trusts which were for a long time failures have eventually achieved prosperity. So it has been with the alkali, salt, sewing cotton, calico-printing, bleaching, cotton and wool-dyeing, and wall-paper combines. In some of these cases, however, certain adventitious circumstances have been instrumental in bringing about prosperity. In few does it appear that the economies of the trust form of organization have conferred substantial advantages on the various constituents of the merger. The same is true of those trusts which have from the outset been very prosperous, such, for instance, as Brunner Mond, Coats, the Imperial Tobacco Co., and the Bradford Dyers. Their success does not prove the superior efficiency of such types of organization, but will be found traceable instead to ordinary considerations. There is, for instance, nothing to show that Brunner Mond or Lever Bros. have worked more efficiently as a result of their recent acquisitions of competing firms. This would appear to be equally true of the other great industrial groups. It has been shown that the tobacco combine, since pre-war years, had made less progress than its small competitors, and is now relatively less prosperous than some of them. In the competitive struggle, the pace is, in fact, being set by firms which in pre-war years eked out a miserable existence. It is not that there has been any absolute decline in the efficiency of the combine, but it appears to have long since passed the point at which the maximum economies are realizable ; whereas the independent firms are rapidly approaching that stage and, in a few cases, appear to have reached it. It may be that if the combine had kept down prices to the minimum required to remunerate capital, it would, to-day, be faced with much

less serious competition, in spite of the great increase in consumption. That, however, is another question.

The explosives trust is one whose monopoly may be said to have resulted in considerably improved efficiency, taking the industry as a whole, yet even in this trade it does not appear that the increased degree of efficiency is such as in itself to preclude the successful establishment of new enterprises. Certainly, in the case of the soap trust, no such consequences have resulted from quasi-monopoly. That combine has not attempted to realize the full economies of unification, but instead has allowed each of the constituent firms to retain its individual organization, subject only to central control of prices and finance. Such policy may be due to a recognition of the immense difficulties of working as one unit over two hundred constituent firms. Or it may be due to some extent to a desire to retain the valuable asset of individual goodwill. But whatever the reason, it would appear justifiable to infer that the combine could produce as efficiently if its capital resources were only a few million instead of £65,000,000. Several trusts would, indeed, appear to have reached a size which has impaired rather than increased their efficiency, and there is evidence to support the view that some of them are finding it difficult to secure a succession of talent equal to that which originally made them so strong. For this reason alone it appears quite possible that some of the trusts which have, up to the present, been very successful, will eventually find it impossible to maintain their supremacy. The law of growth and decay may, in fact, be found as applicable to them as to all other organisms.

The history of foreign trusts, as well as of certain consolidations in England, seems to support this conclusion. In America, over twenty combines which at one time held a monopoly or quasi-monopoly have proved to be failures. Others have maintained their position, but only because of the possession of natural advantages or by resort to the costly policy of buying out rival firms from time to

time. Still others have, in spite of this and other expedients, lost ground. The inference is clear, but it is well to bear in mind that of the factors militating against monopoly, two have operated with special force in the United States, one being the rapid expansion in consumption, and the other the difficulty of finding the ability needed for the unified management of industries so vast as those which exist in that country.

The facts given above appear to justify the conclusion that, while the trust form of organization undoubtedly possesses advantages, these are not often realized in practice, nor are they, even in theory, greater in many cases than those appertaining to organizations which, though very large, are yet not monopolistic. The human element is the principal limiting factor, and this is, perhaps, particularly true of English industrial organization. It must, of course, be observed that nearly all the trusts created in England are now well managed, but clearly most of them have become so only after a long period of failure, and even to-day it does not appear that they can produce better results than some of their smaller rivals. It has to be observed, incidentally, that while the growth of the business unit, by concentrating productive capacity, may in itself appear to endanger the maintenance of competition, it is just in those industries in which it has to be greatest that rivalry, particularly of an international character, is generally most marked. Indeed it is, as a rule, only in those in which the economic unit has remained relatively small that trusts have been created, as, for instance, in the tobacco, wall-paper, whisky, and cement trades.

CHAPTER XXVI

CONCLUSIONS

It remains to summarize briefly the results of the foregoing investigations. England, the home of free trade and of capitalist individualism, has, it must be admitted, become overrun with quasi-monopolist organizations. The movement has proceeded with remarkable momentum, and has taken two related forms—simple association and actual amalgamation. It is not difficult to account for this widespread tendency. It has, of course, derived its primary impulse from the very natural desire to suppress competition. That desire has always existed. But until comparatively recent years it was not so marked, because the competitive struggle was less intense and the co-operative spirit less pronounced. And even when the desire had become urgent and the difficulty of combination had been lessened by the reduction in the number of competitors relative to the total output, it still required the example of the American trust builders to give it widespread and permanent expression.

The fact that a large section of industry is trust-controlled must be recognized—and perhaps emphasized, since the fact is so generally ignored. It would, however, be wrong to take an alarmist view of the situation. The limitations on the power of the various groups are many, and are in most cases very material. A monopoly, strictly speaking, exists in no case. But assuming that there is such a thing, what would be the policy of the monopolist? He would naturally seek to fix prices at a level which would afford the maximum net revenue. In doing so, he would be guided chiefly by two considerations—the elasticity of costs and the elasticity of demand. As to the first, it may be said that the greater the output, the lower the cost per

unit—up to a certain point. Beyond that limit, which is not absolute, but varies according to the degree of efficiency, the cost per unit remains constant, or may, indeed, increase. Regarding the second factor, it is obvious that the elasticity of demand varies inversely with the urgency of the desire, for price changes have only a slight effect on the consumption of commodities for which there is a strong craving, but produce sharp fluctuations in the demand for other goods. In correlating the two factors, it may conceivably be found most profitable to sell at or even below the "competitive" price, but almost always the contrary would prove to be the case, the monopoly element being greatest where the necessaries of life are concerned. There is, however, always a limit beyond which it would not pay to raise prices, for every increase, at least above a certain point, tends not only to restrict consumption, but to lead to the introduction of substitutes for the article monopolized. This indirect competition is often exceedingly important, even where some of the necessaries of life are concerned. So that the sole power of dealing in any particular commodity by no means implies the sole power to cater for a particular demand. And unless the control has as its basis the exclusive possession of a secret process or of primary raw materials, there is the certainty that extortionate prices will create competition directly within the industry which has been monopolized. Finally, there is always the restraining influence of public opinion and of possible Government supervision.[1]

Here, in England, there are single companies which control nearly all the national production of such goods as explosives, soap, wall-paper, industrial alcohol, yeast, and alkali. But granted, even, that the entire output were in each case controlled, there would still be no insuperable obstacle to the formation of new enterprises, while there would always remain one great impediment—namely, unfettered overseas competition.

[1] *Statist*, 5th July, 1924, page 13.

How important are the various limitations may be judged from the facts which have already been given with reference to individual trusts and associations. Here the matter may be dealt with generally. The first point that has to be examined is that of actual and potential domestic competition. Professor Levy has put forward, with great force, the view that the rise of new enterprises is very seriously impeded by the growth of concentration, by which term he means " the restriction of increasing production to an ever-decreasing number of factories and undertakings."[1] That feature, he maintains—and he was writing as far back as 1909—is " the foundation-stone of English cartels and trusts."[2] He bases this theory on the argument—which it may be better to quote *in extenso*—that " the large capital investments which concentration encourages make the foundation of competing firms increasingly costly and difficult " ; and particularly that " every new competitor fit to keep pace with the gigantic creations of concentration means such a very large increase in production, that to find a market there must either be an enormous increase in demand or an immediate drop in prices to a level unprofitable both to the new firm and the monopolists. . . To compete with firms representing 10, 20, or more per cent of the entire output under conditions of production and distribution as favourable as those which their enormous organization gives them, requires a certainty of finding a profitable market for a correspondingly large output. Assuming that the necessary materials can be acquired at the same cost, anyone who can raise sufficient capital can set up an opposition firm producing at approximately the same cost. But if demand is rising slowly, he is digging his own grave. If a combination of these enormous concerns has further resulted in a trust or cartel, the demands on the fresh competitor (because of the resulting increase in the efficiency of the trust) become

[1] Levy, *Monopoly and Competition*, 1909, page 284.
[2] *Ibid.*, page 305.

even more excessive. . . . Naturally, a new competitor need not by any means be prepared to equal the combine in productive power, for very possibly some of the combined firms are not of an economically profitable size. But it must at least be of the same productive power as the firm working most cheaply, and that alone implies a very great size where an industry is highly concentrated. And if the advantages of combination have reduced the average cost of production to the combine to a level below that at which the cheapest producing firm can work in isolation, the new competitor must produce on a large enough scale to try conclusions on this basis. He must make his undertaking larger than the biggest of those combined in the monopoly, and thereby add to the risk of not being able to find a market for the increased output. . . ."[1]

Now, this theory as a statement of a tendency has some truth. But it seems far from justifying the conclusion that "concentration is in every case the basis of English cartels and trusts." It is obvious that in almost every industry the size of the economically profitable unit has been increasing. But this is not to say that the establishment of new enterprises, or the expansion of existing firms, however small, has been rendered proportionately more difficult. Other things being equal, it is, to-day, much easier to float a new company than it was thirty years since. Capital has become much more easily obtainable, the market in raw materials is freer, and the requisite business capacity is everywhere more plentiful.

There are, of course, trusts producing or controlling a very large proportion of the total output of certain industries, but there is nothing to show that they represent the most economic business units. On the contrary, the evidence would suggest that no net advantage is gained by expansion beyond a certain point. That point can often be reached at an early stage; so that, if trade conditions are auspicious, a new undertaking can be easily floated.

[1] *Ibid.*, page 300.

Nor is it correct to say that if a new firm enters a trade in which a monopolist combination has been established, "it must at least be of the same productive power as the firm working most cheaply," which "alone implies a very great size where an industry is highly concentrated." Professor Levy admits, indeed, that "it is not inconceivable that high prices might call forth undertakings inferior in organization and technical appliances to the most profitable undertakings."[1] That is not only "not inconceivable," but highly probable.

However large profits might be, it would, it is true, be more difficult now than formerly to establish new enterprises in certain highly concentrated industries, particularly banking and meat importing. But the difficulty would not be by any means insuperable. It so happens that it is just in the most highly concentrated industries that competition is often most active, largely for the reason that such industries are, as a rule, essentially international. One point that should be emphasized in this connection is that, even if in several industries the growth of the business unit has made the establishment of new enterprises more difficult, it has, at the same time, facilitated or, at any rate, not impeded the invasion by one combine of the sphere of another. Such has been the case in several departments of finance, iron and steel manufacture, engineering, soap, chemical, vegetable oil production, and other industries. It is, as a rule, only in those trades in which the economically profitable unit has remained relatively small that trusts have been established, but other and more important factors than the growth of the industrial unit have been at work to bring about this situation.

It is true that the formation of new enterprises is not so common a feature of English industry as it used to be. But this is primarily because trade is less prosperous and not because the physical difficulties of establishment have become formidable. Wherever profits have been unduly

[1] *Ibid.*

high, even over a short period, the result has been to call fresh competition into being. For example, in the cement trade, the concentration in which, at the beginning of the present century, was considered by Professor Levy to be the " basis " of the quasi-monopoly which was then formed, the immediate effect of high prices and expanding demand has been greatly to stimulate the formation of new enterprises, notwithstanding the large surplus productive capacity of the combine. In the salt trade, where productive capacity is even more excessive, the effect has been similar. Even in the imported meat trade, where the industrial unit has to be exceedingly large, moderate prosperity has recently led to the flotation of companies whose public capital applications would, even under better trade conditions, have probably been out of the question twenty-five years since.

Generally it may be said that concentration, though naturally of some importance, does not constitute the basis of existing trusts. The size of the industrial unit has, it is true, greatly increased, but so also have the physical means available for the creation of new enterprises and for the diversification of existing ones. Moreover, since the industries chiefly affected are essentially international, the national result has been to accentuate rather than to restrict foreign rivalry. It is quite possible that the tendency towards concentration in certain industries may have within itself the seed of monopoly, but how far it will develop is a matter of speculation. Here it is sufficient to affirm that now, as in the past, unduly high prices will inevitably call forth fresh competition.

There remains the question of foreign rivalry. Against this, concentration, being a world-wide tendency, obviously cannot confer any protection. Nor, since Free Trade is still adhered to, is there the artificial safeguard of an import tariff. The protection afforded by the cost of freight may, in some cases, as in the salt and cement trades, afford a large measure of protection, but, as a rule, it is

of slight importance, particularly where finished goods are concerned, in a country which, like England, is of small size and in close proximity to rival industrial nations. The cost of sea carriage from, say, Hamburg to London, is, in fact, often much less than from Newcastle to London; so that control of only part of one domestic industry may well confer greater power than complete control of another. The most that can be achieved is to lever up prices to the external level *plus* freight. The extent to which that adjustment can be made depends on the nature of demand and the degree of actual or potential domestic competition. It has been, partly at least, to exploit this possibility of adjustment that many quasi-monopolist organizations have been formed in England. The advantage gained may, in several instances, have been very material. But it is difficult to form any definite judgment on the question. There are many trusts which, because of their relatively low costs or the special nature of their trade, experience little or no foreign competition and, at the same time, have not much to fear from domestic rivalry. But the absence of heavy imports should not in itself be taken as evidence of monopolist power, for, if prices were raised, the immediate effect would quite possibly be a large increase in imports. Rather, therefore, should the absence of severe foreign competition be taken to indicate, except in the case of trades which are essentially domestic, the observance of a moderate price policy. Nor should it be forgotten that foreign rivalry, though not reflected in imports, may still be very severe. It may, too, find expression in other ways than direct importation, as where the material controlled enters into other products or where a large part of the output has to be sold abroad. In the raw iron trade, for instance, imports aie heavy, but foreign competition in many of the derivative products is still more severe. Again, the tin-plate trade has nothing to fear from foreign rivalry in the domestic market, but it lives so largely by exports that an intensification of competition abroad is

very quickly reflected in the "controlled" domestic prices. Generally, it can be said that in the fixing of prices, foreign rivalry, while placing little, if any, check on the power of certain trusts, exercises in the vast majority of cases a strong and growing influence. Strangely enough, its effect has, as in the tobacco, meat, and match trades, sometimes been to force the domestic producers to amalgamate in a desire to reduce costs and concert common measures of counter-attack. More often, however, its effect has been wholly disruptive, particularly in those industries in which price control is sought by means of simple association.

Free Trade is the primary safeguard against monopoly. There are, admittedly, several industries in which it confers little protection, but even those are subject to some form of indirect foreign competition. It cannot, however, be overlooked that the protection afforded by Free Trade may in some cases be destroyed by international agreement. A necessary preliminary is that in each of the competing countries, control should already be highly centralized either by actual amalgamation or by association. That condition is already fulfilled in many industries in England and other countries. That the difficulties of agreement are not insuperable is shown by the existence of international agreements in the explosives, rail, steel, netting, copper, gas mantles, aluminium, meat, fertilizer, and shipping industries. Other agreements have been mooted, and in some cases have at certain periods existed, in the tube, wire bar, zinc, dye, salt, match, alkali, white lead, electric lamp, and other trades. Certain combines, such as the tobacco, thread, oil, soap, and meat groups, are in themselves essentially international in structure, and are thus in a position to facilitate agreements with foreign rivals. Except in a few instances, however, the alliances that have been made have no monopolistic intent; they are designed primarily to prevent competition from degenerating into financial suicide. That object is not anti-social. It has received open Government approval

in the case of the iron and steel industry, where cut-throat international competition, arising from war-time expansion in productive capacity, has created grave economic distress. If a monopolist policy were pursued, the social objections would, of course, be very strong, particularly in England, where the effect on prices would be much greater than in the other contracting countries. Except in a few industries, however, there does not yet appear to be serious danger in this modern tendency towards international combination.

Actual or potential competition, together with the conditions of demand itself, place a definite limit to the power of existing trusts. Yet it must be admitted that those natural safeguards are, in many cases, inadequate, or, at any rate, do not ensure that prices, while not monopolistic, will not yet be excessive over short periods. Fortunately, it would appear that trusts in England have, either because of necessity or of choice, generally pursued a moderate policy. Investigations by the Departmental Committee on Trusts, and by several committees and sub-committees set up under the Profiteering Acts in 1919–1920, revealed only a few cases in which prices were considered unreasonably high. The tobacco combine was, in fact, credited with having exercised a "restraining influence." Whether the various quasi-monopolist organizations have since changed their policy cannot be easily ascertained. It is generally much more useful to study their influence, not when trade is booming (as it was during the Government inquiries), but when it is stationary or declining. The view that trusts, as well as ordinary industrial undertakings, are, as the chairman of a prominent oil combine has put it,[1] nothing more than "cockle shells tossed about upon a sea of great economic forces" might appear to find support from the experience of the first stages of the trade depression, when many associations went to pieces and even the

[1] Sir Robert Waley Cohen, *The Economics of the Oil Industry*, 1924.

strongest combines were involved in serious losses. The associations, though in many cases revived, have failed to secure real control over prices; but the quasi-monopolist combines, being much less subject to foreign competition and benefiting also by a greater demand in relation to productive capacity, have succeeded in regaining a very remarkable degree of prosperity. The extent of their profits since the depression turned in 1921 would certainly suggest that their prices have been very considerably above the level that would have prevailed under free competition. That, however, is a reflection more on competition than on monopoly, for it will be generally admitted that much of the "free" competition which has existed since 1920 has not been far removed from economic suicide.

The influence of trusts on prices is, of course, exceedingly difficult to measure, since it is impossible to say what would be the price level under conditions of free competition. It is futile to compare quotations before and after the suppression of competition, unless particulars of the costs of production are available, and even then there may still be a danger of drawing false conclusions; for costs, which in any case could not be assumed to remain constant under competitive conditions, are not the only other factor of which account may have to be taken. Thus, even if it be established that profits have risen after the creation of a quasi-monopoly, it has still to be ascertained whether such increase has been caused by the manipulation of prices either directly or through the restriction of output. It may be largely due to a sudden expansion in demand, or to a reduction in expenses which could not have been effected under competitive conditions. And even granted that the enhanced prosperity is due to manipulation of prices, a distinction has to be drawn between those combines which are formed—as they usually are—during a depression and those which are created on the crest of a boom. In other words, no more ground for suspicion or criticism of manipulation may be afforded by

a sharp rise in profits than by their maintenance or decline. It is equally vain to attempt to estimate the monopoly element in profits by comparing home and foreign prices before and after the restriction of competition, for fresh complications are then introduced by the fact that the external prices may not themselves be competitive, and in any case may be determined by the level in the country in which the trust has been created.[1]

While exact measurement of the influence of trusts on prices is for the foregoing reasons impracticable, the simple fact of control may be taken as evidence that prices are higher than they would be under free competition. Trust builders have, indeed, always openly stated that their object is to "maintain" prices, or raise them where they are not "reasonably" profitable.[2] "Without control," they argue,[3] "prices are driven down to the lowest possible level and profits frequently reach a vanishing point. . . . In the absence of profit, manufacturers are discouraged, if not absolutely prevented from reorganizing their plant, expending money upon improvements, and introducing new methods; and thus unrestricted competition may, and frequently does, result in an increase in the costs of manufacture, and to that extent to the actual detriment of the consumer." It is further contended that "one of the beneficial results of the formation of associations, sufficiently powerful to control and maintain prices in the home market" is that it enables manufacturers "to extend their output by selling their products at a lower price, or even at a loss, in foreign markets." In other words, remunerative home prices provide a "fighting fund for the special purpose of subsidizing members who find it necessary to sell at less than an economic price in order to cut out foreign competitors."[4]

[1] *Statist*, 23rd August, 1924, page 269.
[2] *Ibid.*
[3] Report of the Committee on Trusts, 1919, page 5.
[4] *Ibid.*, page 7.

These arguments appear wrongly to imply that free competition inevitably leads to disaster, that monopoly can best encourage efficiency, and that it pays to subsidize foreign trade at the expense of the domestic consumer. It may, however, be admitted that there are circumstances which justify the restriction of competition. That has, indeed, been recognized by the Government, which has itself enforced a rigid scheme of restriction on the rubber plantation industry. The circumstances in that case were similar to those which are to be found in several other industries—namely, a gross excess of productive capacity due to the violent working of economic laws.

The regulation of competition in such exceptional cases may from every standpoint be advisable. In industries in which the circumstances are different—and they constitute the vast majority—the control which has been imposed is not reprehensible in itself. It becomes so only where it involves exploitation of the community. The industrialist has, after all, as much moral right to seek a fair wage by combination as has the member of any other trade union. There is no essential difference between capitalist and labour associations, unless it be that the latter alone impose very rigid restrictions on the rise of new competition. How strong are those restrictions is seen everywhere, and in no sphere, perhaps, so much as in the building trades, where, despite the existence of an acute shortage of labour side by side with widespread unemployment in other industries, "dilution" has been rigorously opposed.

Granted, however, that combination is permissible, it does not follow that it should not be subject to legal as well as natural restrictions in the event of abuse. The possibility of exploitation, over short periods at least, exists in several industries, and the question naturally arises whether it may not be advisable to provide some legal safeguards against this contingency. Strong action

was recommended, in 1919, by a Committee of Inquiry, which submitted the following report[1]—

"We are unanimously of the opinion that it would be desirable to institute in the United Kingdom machinery for the investigation of the operation of monopolies, trusts, and combines. . . . We are satisfied that trade associations and combines are rapidly increasing in this country, and may, within no distant date, exercise a paramount control over all important branches of British trade. We are satisfied that considerable mistrust with regard to their activities exists in the public mind, and that the effect of such mistrust may be equally hurtful to the political and social stability of the State, whether or not the public mistrust and resentment be, in fact, well founded. We consider that it is desirable that means should be provided whereby the fullest information as to the activities of trade associations may be made available to the public, and complaints may be promptly and thoroughly investigated, so that doubts and suspicions may be dispelled; or, on the other hand, the true facts ascertained as to evils for which a remedy is required. We believe that it will be found necessary ultimately to establish further machinery for promptly and effectively dealing with such abuses as the Tribunal of Investigation may discover."

The committee recommended that the Board of Trade should keep itself fully informed as to the nature, extent, and development of industrial combinations, and that a report thereon should annually be submitted to Parliament. Should the information supplied voluntarily be insufficient, or should the result of investigations undertaken by the Board of Trade on its own initiative, or as a result of complaints, provide *prima facie* evidence that the public interest was endangered, then the provision of full information should be made compulsory. Facts so elicited, if found to show that acts injurious to the public interest had been committed, should not be treated as confidential,

[1] Report of Departmental Committee on Trusts, 1919, page 11.

but be published immediately on the conclusion of each inquiry, and it should be the duty of the Board of Trade to make recommendations as to State action in such cases.[1]

These recommendations were not adopted, perhaps because events quickly demonstrated how greatly the power of combines and associations had been over-estimated. But in 1925, after an inquiry which was admitted to afford no evidence of widespread "profiteering," a Royal Commission on Food Prices put forward the view that "the time has come to equip some body with power to deal with monopolies, trusts, and combines which charge unduly high prices for the service they render to the public, or (which) suppress competition merely in order to maintain or expand their profits."[2] The Government has not adopted this recommendation, but it has given effect to the proposal to establish a council to supervise food prices. That body has since rendered a useful service in exposing fraud among retailers, but it does not appear to have discovered any real ground for action within its proper sphere. The danger of monopoly in the food trades would, indeed, appear to be practically non-existent. It is, at any rate, much greater in other industries and, if supervision is at all necessary, it is the latter which should receive most attention.

Legislation, if introduced, should be general, but not drastic and, above all, should be administered with extreme discretion. The problem is twofold: first, to prove exploitation; and, secondly, to decide how it should best be suppressed. The first might appear to be a simple question. Actually, however, it is one of great difficulty, for a definition of what in any particular case constitutes a fair price or a fair profit involves detailed consideration of the nature and circumstances of each trade, and of the capitalization and efficiency of the firms which compose it. It would,

[1] *Statist*, 6th September, 1924, page 339.

[2] Report of Royal Commission on Food Prices (Cmd. 2390), 1925, page 139.

moreover, have to allow, in justice, for fluctuations below as well as above the " fair " level—fluctuations which are, incidentally, often greater in alleged " monopoly " trades than in highly competitive industries. Generally, an equitable, though necessarily arbitrary, decision could be arrived at after much labour. But if the Government proceeded thereupon to fix prices and profits, ignoring the ever-changing conditions of the trade under investigation, it would possibly be found that such a course, if at all practicable, would give rise to greater economic evils than those which it was intended to suppress.

The method of control pursued abroad—particularly in the United States, where the problem has long been acute—has taken various forms, one being the forcible dissolution of trusts; and, another, the prohibition, under penalty of fine and imprisonment, of all price-fixing associations. These, and other measures, while failing to compel manufacturers to perform an action which is essentially voluntary, have, doubtless, been effective in preventing gross abuse of monopolistic power. But the means pursued are not ones which are either desirable or necessary in dealing with the problem in England. Here, also, it is true, the " vampire of monopoly " may be crouching over the body of the community; but, as yet at any rate, the danger is not one which cannot be dealt with effectively by a mild form of Government supervision, supported by publicity and by the force of an enlightened social opinion.

APPENDIX

PRINCIPAL FIRMS ABSORBED OR CONTROLLED BY LEADING COMBINES

COMBINE	FIRMS ABSORBED OR CONTROLLED
Fine Cotton Spinners' and Doublers' Association	Bazley Bros.
	James Bellhouse & Wainwright
	C. E. Bennett & Co.
	F. W. Bouth & Co.
	M. G. and A. Bradley
	J. Henderson Brown
	Brown & Fallows
	John Cash & Sons
	Hector Christie
	John Frogatt & Co.
	Gorsey Bank Doubling Co.
	W. Holland & Sons
	T. Houldsworth & Co.
	Jackson Street Spinning Co.
	John Knott & Sons
	H. W. Lee & Co.
	McConnell & Co.
	Samuel Moorhouse
	A. and G. Murray
	Ormrod, Hardcastle & Co.
	Reddish Spinning Co.
	Thomas Rivett
	John Rostron
	Shaw Jardine & Co.
	George Swindell & Son
	Thomas Taylor & Sons
	John Towle & Co.
	J. Towlson & Co.
	Wolfenden & Son
	Woodeaves Co.
	Great Lever Spinning Co.
	Bradford Colliery Co.
	Pearsons & Dexters
	Manchester Reeling and Winding Co.
	Dolphin Doubling Co.
	Lancashire Hill Rope and Twine Co.
	Richard Harwood & Son
	Wright Turner & Son
	Robert Platt & Co.
	Delebart Mallet Fils
	Société Cotonniere d'Hellemmes
	Delta and Pine Lands Co.

Combine	Firms Absorbed or Controlled
J. and P. Coats	Kerr & Co. Clarke & Co. I. P. Clarke & Co. James Chadwick & Bros. Jonas Brook & Bros. Central Agency
English Sewing Cotton Company	R. F. and J. Alexander & Co. Lawrence Ardern Sir George Arkwright & Co. Edmund Ashworth & Sons Bagley and Wright William Clapperton & Co. John Dewhurst & Sons English Thread Co. Ermen & Roby S. Manlove & Sons Marsland, Son & Co. J. T. Raworth W. G. and J. Strutt William Waller & Co. J. and E. Waters & Co. Geo. Wigley & Co. American Thread Co.
Bradford Dyers' Association	Robert Clay George Armitage Ashenhurst Dyeing Co. Aykroyd and Grandage Wm. Aykroyd & Sons J. and H. Bleackley F. Cawley & Co. Craven Pearson & Co. Cravenette Co. Fentona Cotton Supply Co. W. Grandage & Co. Greenbottom Dyeing Co. Greetland Dyeing Co. Halifax Dyeing Co. Adam Hamilton & Sons Hunsworth Dyeing Co. H. Kershaw & Sons Samuel Kirk & Sons Lingfield Dyeing Co. Low Moor Chemical Co. Norcroft Dyeing Co. Ed. Ripley & Sons T. Robinson & Co. J. and M. S. Sharp & Co. Shaw & Co. (Shipley) John Shaw & Co. Standish Co. Stockbridge Finishing Co.

Combine	Firms Absorbed or Controlled
Bradford Dyers' Association—(*contd.*)	Thornton Hannam & Marshall
	Water Lane Dyeworks Co.
	Whitaker Bros. & Co. (Dyers)
British Cotton and Wool Dyers' Association	Burton and Slingsby
	John T. Dawson
	W. and G. Hilton
	Joshua Siddall & Sons
	W. Eckersall & Co.
	Jopson Ashworth & Edmunds
	Joseph Barlow & Sons
	Kearns, Allan & Co.
	Richard Moir & Co.
	Kerr & Hoegger
	Mercerizing Co.
	Edward Lee
	Mercer Co. (Manchester)
	Robinson Bros. (Blackburn)
	John Siddall
	S. Smethurst (Rochdale)
	Bradford Patent Dyeing Co.
	John Buckle & Co.
	Fletcher Bros.
	H. Fletcher & Co.
	Alfred Goodall & Co.
	Benjamin Ingham
	Heppenstall Bros.
	Marshfield Dyeing Co.
	Joseph Balme
	Oliver Greenwood
	Murgatroyd & Lister
	Grandages (Brighouse)
	Wm. North & Co.
	Abram Peel Bros.
	Adam Robinson & Co.
	Isaac Robson & Sons
	Silsden Dyeing Co. (1915)
	Henry North & Sons
	D. Brown & Co.
	Brownlee & Fyfe
	Cochrane Smith & Co.
	D. Macfarlane & Sons
	J. and J. McCallum
	W. McConnell & Co.
	P. Caldwell & Co.
	Alex. Reid & Brother
	Rule & Leylen
	Thos. Simpson & Co.
	Wm. Cunningham & Co.
	John Turnbull & Sons
	Turnbulls
	James Scoon
	Eagle Dyeing Co.
	David Brown

Combine	Firms Absorbed or Controlled
Calico Printers' Association	George Andrew & Sons
	Allan, Arthur, Fletcher & Co.
	F. W. Ashton & Co.
	Bayley & Craven
	Belfield Printing Co.
	John Bennett & Sons
	Bingwood Printing Co.
	Birkacre Printing Co.
	Black & Wingate
	James Black & Co.
	Thomas Boyd & Co.
	Bradshaw Hammond & Co.
	John Brier & Sons
	Broad Oak Print Works
	Bryce, Smith & Co.
	Ed. and Jos. Buckley
	J. H. Calvert & Bros.
	Castleton Print Works
	Crum's Prints
	R. Dalglish
	Falconer & Co.
	Dalmner Printing Co.
	John Dalton
	Dinting Vale Print Works
	Ferryfield Printing Co.
	Gartside & Co. (of Manchester)
	Gateside Printing Co.
	Gemmell & Harter
	Gibson & Costobadie
	Wm. Gourlie & Son
	F. W. Grafton & Co.
	James Gray & Sons
	Gutrie & McArly
	Hardy Starke & Co.
	Hayfield Printing Co.
	Hewit & Wingate
	Z. Heys & Sons
	S. Higginbotham & Co.
	John F. Hill & Co.
	Hoyles Prints
	Inglis & Wakefield
	Robert Kay & Sons
	J. L. Kennedy & Co.
	Kershaw Whittam & Taylor
	Kinder Printing Co.
	S. Knowles & Co.
	Daniel Lee & Co.
	Love Clough Printing Co.
	Low Mill Bleaching and Printing Co.
	A. R. Macgregor & Co.
	A. MacNab & Co.
	Millfield Printing Co.
	James Mills & Co.
	Moir & Co.

Combine	Firms Absorbed or Controlled
Calico Printers' Association—(*contd.*)	Adam Murray & Co.
	Edmund Potter & Co.
	Rosendale Printing Co.
	E. B. Rumney
	William Rumney & Co.
	Charles Saxby
	S. Schwabe & Co.
	J. C. Semple & Co.
	James Shaw & Co.
	South Arthurlie Printing Co.
	Springfield Printing Co.
	Strines Printing Co.
	Syddall Bros.
	Thornliebank Co.
	Robert Walker & Sons
	William Watson & Co.
	Whalley Abbey Printing Co.
	Christopher Wood
	Wright and Whittaker
Bleachers' Association	Richard Ainsworth Son & Co.
	Abraham Barlow
	A. C. Bealey & Son
	Bennett & Jackson
	Birkacre Bleaching Co.
	Blackwoods
	Bowfield Bleaching Co.
	T. R. Bridson & Sons
	James Brown of Chisworth
	W. E. Buckley & Co.
	Buckley & Brennand
	Bulwell Finishing Co.
	James Burt-Marshall
	Carey, McClellan & Co.
	R. and A. Chambers
	J. B. Champion & Co.
	Chorley Bleaching Co.
	James Cleland
	Cotton Cellulose Co.
	Thomas Cross & Co.
	Davies & Eckersley
	Eccles Bleaching Co.
	Eden & Thwaites
	Forrest, Gillies & Co.
	Greenfield Bleaching Co.
	Andrew Greenhaigh
	Edward Hall & Brother
	Handforth Bleaching Co.
	James Hardcastle & Co.
	Thomas Hardcastle & Son
	Harwood Vale Bleaching Co.
	Hepburn & Co.
	Robert Heywood
	James T. Holt

Combine	Firms Absorbed or Controlled
Bleachers' Association— *(contd.)*	Horridge & Co.
	Inver Bleach & Dye Works
	Irkdale Bleachworks Co.
	Jolly & Jackson
	A. J. King & Co.
	Kirkpatrick Bros.
	Knowles & Green
	John T. Lawton
	Thomas Lewis Livesey
	Longworths of Springfield
	John Longworth of Horwich
	J. Marsden & Co.
	James McHaffie & Son
	John McNab & Co.
	Melland & Coward
	William Mosley
	George Murton & Co.
	Rawenstall Bleaching Co.
	Thomas Ridgway & Co.
	River Etherow Bleaching Co.
	Roach Vale Bleaching Co.
	Samuel Rothwell
	Shuttleworth Bleaching Co.
	Simpson & Jackson
	G. and J. Slater
	John Smith Junr. & Co.
	John Stanning & Sons
	Star Bleaching Co.
	Stevenson, McKellar & Co.
	Sykes & Co.
	John Walton (Heaton Mersey)
	John Whitehead of Elton
	Whittakers of Mount Sion
	Charles Whowell
	John Young & Co. (Crumpsall)
Richard Thomas	Grovesend Steel and Tinplate Co.
	Redbourn Hill Iron and Coal Co.
	Crymfelin Steel and Tinplate Works
	Aber Tinplate Works
	Raven Tinplate Co.
	S. J. Burrell Prior
	Richard Nevill & Co.
	Raglan Collieries
	Swansea Navigation Collieries
Guest, Keen & Nettlefolds	Dowlais Iron Co.
	Patent Nut and Bolt Co.
	Guest & Co.
	Nettlefolds
	John Lysaght & Co.
	F. W. Cotterill
	Joseph Sankey & Sons
	Bayliss Jones and Bayliss

Combine	Firms Absorbed or Controlled
Guest, Keen & Nettlefolds —*(contd.)*	D. Davis & Sons
	Consolidated Cambrian
	Britannic Merthyr Coal Co.
	Glamorgan Coal Co.
	Naval Colliery
	Meiros Collieries
	L. Guérét & Co.
Lever Brothers	Joseph Crosfield & Sons
	William Gossage & Sons
	Joseph Watson & Sons
	John Knight
	A. and F. Pears
	Hodgson & Simpson
	Ogston & Tennant
	R. S. Hudson
	Christopher Thomas & Bros.
	Erasmic Co.
	Vinolia Co.
	Barrington & Sons
	Ed. Cook & Co.
	African Oil Nuts Co.
	African Products Development Co.
	Apol
	Associated Enterprises
	Barton's Seed Crushing Mills
	Bathurst Trading Co.
	Bennie & Kitchen
	Blyth & Platt
	Bristol Refining Co.
	Bromboro Port Estate
	Benjamin Brooke & Co.
	Cavalla River Co.
	F. Chivers & Co.
	G. W. Christain & Co.
	F. S. Cleaver & Sons
	Company of African Merchants
	Crown Perfumery Co.
	Doudney & Co.
	Duché & Knight
	Earles & King
	Fripps, Ltd.
	D. and W. Gibbs
	R. B. Green & Co., Ltd.
	Harris Whaling & Fishing Co.
	R. Hassan & Co.
	Hazlehurst & Sons
	F. Hewthorne & Co.
	F. J. Hunt & Co.
	Improved Whaling
	International Icilma Trading Co.
	Richard & William King
	Lawson & Co. (Bristol)
	Lever Stores

Combine	Firms Absorbed or Controlled
Lever Brothers—(*contd.*)	Mac Fisheries
	W. B. MacIver & Co.
	Millbay Soap & New Patent Candle Co.
	Muirhead & Willcock
	Niger Co.
	Niger Minerals Development Co.
	Palm Oil Estates Managers
	C. H. Parsons & Brother
	Planters Foods
	Planters Products
	Premier Margarine Co.
	Price's Soap Co.
	P. Ratcliffe & Co.
	Robin & Houston
	T. B. Rowe & Co.
	S.P.D.
	Seychelles Guano Co.
	Simpson & Co.
	Southern Whaling & Sealing Co.
	Thames Soap Co.
	J. L. Thomas & Co.
	Trading Association of Nigeria
	Trufood
	Tyron & Co.
	John Walkden & Co.
	West African Oil
	Wilkie & Soames
	Williamson & Simpson
Salt Union	Joseph Verdin & Sons
	Cheshire Amalgamated Saltworks
	Stubbs Bros.
	Eureka Salt Manufacturing Co.
	British Salt Co.
	Thomas Rayner & Co.
	Marston Hall Salt Co.
	Simpson Davies & Sons
	Wm. & Robert Hickson
	Fletcher & Rigby
	Yeomans & Co.
	Parks Bros.
	Ralph Seddon & Sons
	James Platt & Sons
	Mersey Salt & Brine Co.
	South Durham Salt Co.
	Droitwich Salt Co.
Brunner Mond	Castner Kellner Alkali Co.
	Electro-Bleach and By-Products
	Chance & Hunt
	Synthetic Ammonia and Nitrates
	Buxton Lime Firms Co.

COMBINE	FIRMS ABSORBED OR CONTROLLED
United Alkali Co.	Henry Baxter
	Globe Alkali Co.
	Greenbank Alkali Works Co.
	A. G. Kurtz & Co.
	James McBryde & Co.
	St. Helen's Chemical Co.
	Sutton Lodge Chemical Co.
	Thomas Walker
	Atlas Chemical Co.
	Gaskell, Deacon & Co.
	Golding, Davis & Co.
	Hall Bros. & Shaw
	Hay, Gordon & Co.
	John Hutchinson & Co.
	Liver Alkali Co.
	Niel Mathieson & Co.
	Mort, Liddell & Co.
	Muspratt Bros. & Huntley
	James Muspratt & Sons
	W. Pilkington & Son.
	Runcorn Soap and Alkali Co.
	Thos. Snape
	Sullivan & Co.
	Widnes Alkali Co.
	Wigg Bros. & Steele
	Netham Chemical Co.
	Hazelhurst & Sons
	Heworth Alkali Co.
	Jarrow Chemical Co.
	Newcastle Chemical Works Co.
	J. G. and W. H. Richardson
	Seaham Chemical Works Co.
	St. Bede Chemical Co.
	Charles Tennant and Partners
	Wallsend Chemical Co.
	Eglinton Chemical Co.
	Irvine Chemical Co.
	North British Chemical Co.
	Charles Tennant & Co. of St. Rollox
	Boyd, Son & Co.
	Newcastle Chemical Works
	Charles Tennant and Partners
	Fleetwood Salt Co.
	E. Bramwell & Son — Alkali branches
	Morgan Mooney — Alkali branches
	Dublin & Wicklow Manure Co. — Alkali branches
	Peter Alfred Mawdsley, Flint — Alkali branches
	Tyneside Chemical Co. — Alkali branches
British Dyestuffs' Corporation	British Dyes
	Levinstein
	Scottish Dyes

Combine	Firms Absorbed or Controlled
Nobel Industries	Amac
	Bickford, Smith & Co.
	British Pluviusin Co.
	British South African Explosives Co.
	British Westfalite
	Wm. Brunton & Co.
	Continuous Reaction Co.
	Frederick Crane & Co.
	Curtis's & Harvey
	Eley Bros.
	Elterwater Gunpowder Co.
	Excelsior Motor Radiator Co.
	King's Norton Metal Co.
	Kynoch
	Lighting Trades
	John Marston
	New Pegamoid
	Nobel's Explosives Co.
	Patent Electric Shot Firing Co.
	Roburite and Ammonal
	Sedgwick Gunpowder Co.
	W. H. Wakefield & Co.
Associated Portland Cement Manufacturers	British Portland Cement Manufacturers
	Tolteca Portland Cement Co.
	Martin Earle & Co.
	Wouldham Cement Co.
	Kent Portland Cement Co.
	J. Bazley White & Bros.
	Knight Bevan & Sturge
	London Portland Cement Co.
	Gibbs & Co.
	Weston & Co.
	C. T. Johnson & Co.
	Francis & Co.
	Robins & Co.
	Imperial Portland Cement Co.
	Wilders & Cary
	MacEvoy & Holt
	Hollick & Co.
	Lawrence & Wimble
	New Rainham Portland Cement Co.
	Tower Portland Cement Co.
	Hilton Anderson & Brooks
	Burham Brick, Lime, and Cement
	Tingey & Son
	Booth & Co.
	McLean Levett & Co.
	Trechmann Weekes & Co.
	West Kent Portland Cement Co.
	Phoenix Portland Cement Works
	Borstal Manor Portland Cement Works
	I. C. Johnson & Co.
	Charles Francis, Son & Co.

Combine	Firms Absorbed or Controlled
Union Cold Storage	Argenta Meat Co.
	British and Argentine Meat Co. (1923)
	British Beef Co.
	Dewhurst
	Donald Cook & Son
	Eastmans
	John Layton & Co.
	Lonsdale & Thomson
	North Australian Meat Co.
	Proprietors of Fletcher's (Meat Importers)
Spillers Milling and Associated Industries	Spillers & Bakers
	Spillers Grain Co.
	Spillers Victoria Foods
	Spillers Steamship Co.
	Uveco Cereals
	British Oak Insurance Co.
	W. Vernon & Sons
	Watson, Todd & Co. (Millers)
	F. A. Frost & Sons
	Cardiff and Channel Mills
	Spillers Nephews
	John Jackson & Son.
	Rishworth, Ingleby & Lofthouse
	Turog Brown Flour Co.
	Spillers Overseas Industries
Distillers Company	John and Robert Harvey & Co.
	John Begg
	J. J. Vickers & Co.
	Daniel Crawford & Sons
	John Hopkins & Co.
	Distillers Agency
	United Distillers
	J. and G. Stewart
	Buchanan-Dewar
	John Walker & Sons
	Scottish Malt Distillers
	Hammersmith Distillery Co.
	Preston's Liverpool Distillery Co.
	Yoker Distillery
	John Haig & Co.
	Distillers Finance Corporation
	Sutton, Carden & Co.
	Sir Robert Burnett & Co.
	Boord & Son
	International Sugar & Alcohol Co.
	James Buchanan & Co.
	John Dewar & Sons
	W. P. Lowrie & Sons
	Glenlossie-Glenlivet Distillery Co.

Combine	Firms Absorbed or Controlled
Imperial Tobacco Co.	W. D. & H. O. Wills
	Lambert & Butler
	John Player & Son
	Stephen Mitchell & Son
	F. and J. Smith
	William Clarke & Son
	Hignett Bros. & Co.
	Hignett's Tobacco Co.
	Franklyn, Davey & Co.
	Edwards, Ringer & Bigg
	Richmonds Cavendish Company
	Adkin & Son
	D. & J. MacDonald
Bryant & May	Maguire, Paterson & Palmer
	R. Bell & Co.
	Premier Match Co.
	G. M. Judd & Sons
	S. J. Moreland & Son
	W. J. Morgan & Co.
	Octavius Hunt
Wallpaper Manufacturers	D. Walker
	Potter & Co.
	Anaglypta Co.
	Lewis & Co.
	Lignomur Co.
	Cordelova Co.
	Fincham & Co.
	Carlisle & Clegg
	J. Trumble & Sons
	C. & J. G. Potter
	Huntington Frères
	Allan Cockshutt & Co.
	Osborn & Shearman
	Walker, Carver & Co.
	W. G. Wilkins & Co.
	Mitchell, Arnott & Co.
	Lightbow, Aspinall & Co.
	Darwen Paper Staining Co.
	Heywood Paper Staining Co.
	Barnes, Davidson Holden & Co.
	Yates, Dauncey & Dawson
	A. Sanderson & Sons, Wylie & Lochead, J. Dunn & Son, Essex & Co. — Wall Paper Branches
	United Asbestos Co. (Decorations branch)
	Claremont Paper Staining & Engraving Co.
	C. Cole
	F. W. Howarth
	Smith & Butler

Combine	Firms Absorbed or Controlled
Wallpaper Manufacturers —(*contd.*)	Kinder McDougall & Co. Doncaster Paper Staining Co. Broadfield Paper Staining Co. Holmes Chapel Wall-paper Co. Little Lever Paper Staining Co. Middleton Wall-paper Manufacturers Jeffrey & Co.
Dunlop Rubber Co.	Dunlop Plantations No. 2 D.R. Cotton Mills Dunlop Rim & Wheel Co. Improved Steel Co. W. Goodyear & Sons Dunlop Tyre & Rubber Corporation of America W. & A. Bates Chas. Macintosh & Co. Broadhurst & Co. Campbell, Achnach & Co. Casoid Manchester Balata Belting Co. Macintosh Cable Co. New Eccles Rubber Works New Liverpool Rubber Co. Shrewsbury & Challiner Tyre Co. William Knott & Son
Peninsular and Oriental Steam Navigation Co.	British India S.N. Co. Orient S.N. Co. N. Zealand S. Co. Federal S.N. Co. Union S.S. Co. Hain S.S. Co. Khedivial Mail S.S. Co. General S.N. Co. Nourse Line
Royal Mail Steam Packet	Elder Dempster British & African S.N. Co. African S.S. Co. Union-Castle Lamport & Holt Pacific S.N. Co. Nelson S.N. Co. Glen Line MacAndrews & Co. White Star Line[1]
Cunard	Commonwealth & Dominion Line Brocklebank Line Anchor Line Anchor-Donaldson Line America-Levant Line

[1] To be acquired as from January 1, 1927.

Combine	Firms Absorbed or Controlled
Furness, Withy	Prince Line Johnston Line Rio Cape Line Gulf Line Neptune S.N. Co. Warren Line Furness-Houlder Argentine Lines Houlder Bros. & Co., managing Empire Transport Co. Empire S.N. Co. Houlder Line British and Argentine S.N. Co. Norfolk & N. American S.N. Co.
London, Midland & Scottish Railway	London & North Western Midland Lancashire & Yorkshire North Staffordshire Furness Caledonian Glasgow & South Western Highland
London & North Eastern Railway	North Eastern Great Central Great Eastern Great Northern Hull & Barnsley North British Great North of Scotland
Great Western Railway	Great Western Barry Cambrian Cardiff Rhymney Taff Vale Alexandra (Newport & South Wales) Docks and Railway
Southern Railway	London & South Western London, Brighton & South Coast South Eastern London, Chatham & Dover South Eastern & Chatham Managing Committee
Barclays Bank	York Union Banking Co. J. & J. W. Pease Hammond & Co. Wooten & Co. Bolitho & Co. Stamford, Spalding & Boston Banking Co.

Combine	Firms Absorbed or Controlled
Barclays Bank—(*contd.*)	United Counties Bank
	London, Provincial & South Western Bank
	Union Bank of Manchester
	British Linen Bank
	Anglo-Egyptian Bank
Lloyds Bank	Capital and Counties Bank
	National Bank of Scotland
	West Yorkshire Bank
	London & River Plate Bank
	Cox & Co.
	P. & O. Banking Corporation
	Bank of British West Africa
	National Bank of New Zealand
Midland Bank	Central Bank of London
	City Bank
	North & South Wales Bank
	Bradford Banking Co.
	Sheffield & Hallamshire Bank
	Lincoln & Lindsey Banking Co.
	Metropolitan Bank
	London Joint-Stock Bank
	Belfast Banking Co.
	Clydesdale Bank
	North of Scotland Bank
National Provincial Bank	Union of London & Smith's Bank
	Bradford District Bank
	Sheffield Banking Co.
	Coutts & Co.
	Northamptonshire Union Bank
Westminster Bank	London and Westminster Bank
	Parr's Bank
	Nottingham & Nottinghamshire Bank
	Beckett's Banks
	Ulster Bank

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